AN ANALYSIS OF THE EVALUATION PRACTICES OF EMPLOYER-SPONSORED TRAINING IN THE FINANCIAL SERVICES INDUSTRY

A Dissertation

by

ANGELA KAY GOMEZ

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2003

Major Subject: Educational Psychology

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ABSTRACT

An Analysis of the Evaluation Practices

of Employer-Sponsored Training

in the Financial Services Industry. (May 2003)

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Instructional evaluation is essential for assessing the effectiveness of learning events. In today's economy, corporations are under great pressure to reduce expenses, and training budgets often feel the effects. The closure of in-house training programs, combined with the reduction of training budgets, could be seen as evidence of training professionals' inability to prove their worth in terms of organizational benefit. To solidify their value to an organization, training departments must assess the effectiveness of their programs and provide evidence that they are supporting the organization's goals.

The purpose of this study was to determine how employer-sponsored training is evaluated in the financial services industry by firms affiliated with DALBAR, Inc., using Kirkpatrick's four-level evaluation model as a framework. The total population for this study consisted of all financial services organizations providing education and training. The target population was limited to the financial services organizations that subscribe to the services provided by DALBAR, Inc. Affiliation with DALBAR was considered an indicator of interest in raising standards of excellence within the financial services

industry. Therefore, DALBAR affiliation was believed to represent organizations whose training personnel had current knowledge of industry practices and thereby would report higher usage of evaluation than the total population of other entities. Data was collected using a modified survey instrument.

Patterns, trends, models and methods of training evaluation among these financial services organizations were examined. Finally, barriers to implementation of training evaluation were identified and explored. Recommendations for practice include increasing training department staff members' knowledge of evaluation theories and techniques, as well striving to make training evaluation a priority for the organization as a whole. Among the recommendations for future research is the execution of a qualitative study to be conducted through in-depth interviews with selected respondents to explore in greater detail the relationships between organizational characteristics and the implementation of higher levels of evaluation.

DEDICATION

This dissertation is dedicated to my parents

A.A. and Janet Gomez

and in loving memory of my grandparents

Dean and Verna Chastain.

"I can do all things through Christ, who strengthens me." Philippians 4:13

"Love is patient and kind; love is not jealous or boastful; it is not arrogant or rude. Love does not insist on its way; it is not irritable or resentful; it does not rejoice at wrong, but rejoices in the truth. Love bears all things, believes all things, hopes all things, endures all things." 1 Corinthians 13: 4-7

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TABLE OF CONTENTS

		Page
ABSTRACT		iii
DEDICATION		v
ACKNOWLEDGMENTS		vi
TABLE OF CONTENTS		vii
LIST OF TABLES		xi
CHAPTER		
I	INTRODUCTION	1
	Background	2
	Significance of the Study	9
	Statement of the Problem	10
	Statement of the Purpose	12
	Research Questions	12
	Assumptions	13
	Limitations	13
	Definition of Terms	14
II	REVIEW OF THE LITERATURE	17
	Training	17
	Evaluation	21
	Purpose of Evaluation	23
	Kirkpatrick's Four Levels of Evaluation Model	27
	Expansion of Kirkpatrick's Levels of Evaluation	34
	Training Evaluation in the Financial Services Industry	41
	Summary	42
III	METHODOLOGY	44
	Purpose of the Study	44
	Research Design	44
	Population and Sample	45
	Hypotheses	46

CHAPTER		Page
	Instrumentation	47
	Validity and Reliability	48
	Data Collection Procedure	49
	Data Analysis	50
	Summary of Methodology	50
IV	DATA ANALYSIS	54
	Introduction	54
	Analysis	54
	Population Size, Response Rate, and Margin of Error	54
	Respondent Demographics	56
	Extent of Use: Training Evaluation Levels 1,2,3,4, and ROI	62
	Patterns, Trends, Methods, and/or Models of Training Evaluation	65
	Variances in Patterns, Trends, Methods, and/or Models of Training Evaluation Based on Organizational Structure and Characteristics	78
	Barriers to Evaluation of Training	83
	Other Findings	85
	Summary	85
V	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	87
	Summary	87
	Research Questions	87
	Research Methodology	88
	Findings	89
	Conclusions	93
	Recommendations to Organizations	95
	Recommendations for Further Research	96
REFERENCES		97
APPENDIX A		105
APPENDIX B		117
APPENDIX C		118
APPENDIX D		119

Page

APPENDIX E 120

APPENDIX F 123

APPENDIX G 128

APPENDIX H 129

APPENDIX I 130

APPENDIX J 131

APPENDIX K 132

APPENDIX L 133

APPENDIX M 134

APPENDIX N 135

APPENDIX O 136

APPENDIX P 137

APPENDIX Q 138

APPENDIX R 139

APPENDIX S 140

APPENDIX T 141

APPENDIX U 142

APPENDIX V 143

APPENDIX W 144

APPENDIX X 145

APPENDIX Y 146

Page

VITA 148

LIST OF TABLES

TABLE		Page
2.1	Reasons for Not Evaluating at Each Level – Technical Training	40
2.2	Reasons for Not Evaluating at Each Level – Healthcare Industry	41
4.1	Comparison of Results Received by Group 1 and Group 2	55
4.2	Type of Financial Services Organizational Structure	58
4.3	Types of Financial Services Offered	58
4.4	Organization Size (Including full-time, part-time, and contract employees)	59
4.5	Respondent Demographics	60
4.6	Levels of Evaluation for Current Study and Previous Studies	63
4.7	Evidence of Training Evaluation Commitment: Staff Involvement, Budget, and Formal Staff Preparation in Evaluation	65
4.8	Use of Level 1 Evaluation Methods	67
4.9	Use of Level 2 Evaluation Methods	68
4.10	Use of Level 3 Evaluation Methods	69
4.11	Use of Level 4 Evaluation Methods	70
4.12	Use of Return-on-Investment (ROI) Level Evaluation Methods	72
4.13	Timing of Evaluation Planning and the Organization's Evaluation Planning Process	73
4.14	Percentages of Why Employees Are Sent to Training Programs	74
4.15	Percentage Use of Evaluation Level with Reasons for Training	75
4.16	Percentage Use of Level of Evaluation with Evaluation Implementation Timetable	76

TABLE Page

4.17 Ranking of Criteria for Training Program Selection for ROI Evaluation 77

4.18 Respondent Criteria Ranking for an Effective ROI Method for Training Evaluation 78

4.19 Differences Between Organization Size Regarding Percentage of Programs Evaluated at Different Levels 79

4.20 Differences in Percentage of Programs Evaluated at Various Levels Depending on Routine Reporting of Training Evaluation Information to Executive Management 82

4.21 Results from Independent Samples T-Test Comparing Whether Results Are Reported to Management and Percentage of Programs Evaluated at Various Levels 82

4.22 Reasons for Non-Use of Evaluation at Various Levels 84

CHAPTER I

INTRODUCTION

The evaluation of instruction is essential for assessing the effectiveness of teaching and learning events undertaken by U.S. businesses. In today's economy, corporations are under great pressure to reduce expenses, and training budgets often come under scrutiny. The closure of in-house training programs, combined with the reduction of training budgets, could be seen as evidence of training professionals' inability to show their worth in terms of organizational benefit. To solidify their value to an organization, training departments must assess the effectiveness of their programs and provide evidence that they are supporting the organization's goals.

Business training professionals are being called upon to provide evaluation of training. Further, the training professionals are being asked to evaluate the organizational impact of training at a financial level. Studies by Lombardo (1989) and Carnevale and Schulz (1990) indicate that training professionals often lack the guidelines or tools for improving their understanding of financial analysis. Evaluation of training at the organizational impact level involves, at a minimum, knowledge of training and development, evaluation, statistics, finance/accounting, and project management, as well as the organization's culture and business environment (Phillips, 1996g, 1997b, 1997c; Hilbert, Preskill, & Russ-Eft, 1997).

This dissertation follows the style of the *Journal of Educational Psychology*.

Background

Importance of Evaluation

Any general discussion of evaluation must first address its importance. The points most frequently made relate to justifying the investment of time, and the capital required to train employees, and the need for information to assist in deciding which programs to develop, implement, and retain. Information of this nature should also be the basis for decisions about the role of training in an organization (Carnevale & Schultz, 1990; Dixon, 1990; Gordon, 1991; Phillips, 1991; Robinson & Robinson, 1989).

Training Costs

U.S. businesses and industries spend a tremendous amount of time and money providing training to their employees. Each year some 58.6 million employees receive formal, employer-sponsored training (Phillips, 1997c). *Training* magazine's *Industry Report 2001* (20th annual) indicates that $56.8 billion was budgeted for training in U.S. organizations in 2001. A Rutgers University study estimated that companies waste between $5.6 and $16.8 billion every year on ineffective training programs (Armour, 1998). Barring an unforeseen change in the business environment, the demand for more skilled workers is rising and the trend toward increasing training costs will continue.

Evaluating for improvement

"The reason for evaluating is to determine the effectiveness of a training program" (Kirkpatrick, 1994). Evaluation can provide information about such factors as how much learning takes place, the use of what is learned on the job, student characteristics, and delivery variables. Such information can be used to identify those

factors that have a positive or a negative effect on training. Once identified, those factors that positively affect training can be maintained and those factors that negatively affect training can be changed or addressed (Dixon, 1990; Kirkpatrick, 1994). The data gathered through evaluation can be used to compare actual training outcomes with the predicted or required outcomes so that programs may be modified to match needs.

Additionally, evaluation may be used "to improve the design or delivery of learning events" (Dixon, 1990, p. 2). Concepts such as experiential learning, learning styles, and cognitive aging differences can be applied to training programs. Also, the ability to change the effectiveness and efficiency of training may be tested using evaluation data. New instructional technologies such as multimedia delivery can be compared with other means of delivery training in areas such as cost, effectiveness, and acceptance. Quite simply, evaluation can be used to identify the most effective types of learning events and improve upon them as necessary (Dixon, 1990).

Evaluating to prove value

The literature, whether in the field of training or education, includes evaluation as a necessary part of program development. Evaluation is necessary to demonstrate the value of training, to maintain funding, and to provide management the information on which to base decisions concerning the development, modification, and continuation of training programs. Training as part of the Human Resource and Human Resource Development (HR/HRD) mission is increasingly being called upon to show value for the efforts and funds invested (Hilbert, Preskill, & Russ-Eft, 1997; Phillips, 1997a, 1997b, 1997c). Realization that human resources are the greatest single expenditure in most

organizations coupled with “the vast potential for using human resources to enhance productivity, improve quality, spur innovation, contain costs, and satisfy customers” creates an imperative and a challenge (Phillips, 1996g, p. xiv).

Evaluation Methods

Evaluation methods to assess the effectiveness of training have existed and been used in many contexts for some time. Among the most generally recognized and widely utilized models is Donald Kirkpatrick’s (1994) Four Levels of Evaluation. In this respect, Kirkpatrick's scheme offers a useful framework for classifying, analyzing and assessing the nature and scope of training evaluation in industry. Information about how much training evaluation is conducted in business and industry is usually based on Kirkpatrick’s Four Levels:

- Level 1: Participant reaction
- Level 2: Attainment of learning objectives
- Level 3: Actual changes in on-the-job performance
- Level 4: The effect of training on the organization

(Medsker & Roberts, 1992).

Participant evaluation (Level 1 or reaction) addresses subjective issues such as the trainee’s feeling about the value of the program, the quality of the instructor, how the program may be improved, and other variables. Participant evaluations are usually accomplished using reaction forms, which are administered during, or immediately

following a training program and provide the trainee an opportunity to evaluate training subjectively.

Level 2 Evaluation (measures of learning) consists of post-tests, which are administered either via pen and paper or behaviorally, using skills tests. The intent of the Level 2 Evaluation is to determine if the objectives of the training were accomplished. Did the employee gain the skills and knowledge that the training was designed to deliver? A set of well-developed objectives based on Mager's seminal work in this area, *Preparing Instructional Objectives* (1984b), in which the testing criteria are written into each objective, makes this level of evaluation simple and straightforward.

It is important to note that Level 2 Evaluation is intended to verify whether or not training achieved its objectives, not if it achieved training goals such as changes in job performance. Instead, the skills and knowledge gained by the participant during the learning event are measured, but they may or may not be used in the workplace (Kirkpatrick, 1975).

To evaluate any new training concept, method, or technique, simply comparing outcomes using Level 2 Evaluation is not sufficient (Dixon, 1990). As Kirkpatrick stated "There may be a big difference between knowing principles and techniques and using them on the job" (1975c, p. 10). Therefore, changes in actual behavior are addressed by Kirkpatrick's Level 3 Evaluation, which attempts to determine if changes in job performance occurred as a result of training.

Finally, from a broader perspective, Level 4 Evaluation evaluates the impact of training on the organization. The evaluation is summative and places a value on the

outcomes of training. Information obtained from a Level 4 Evaluation is useful in determining if training is an effective solution to an organizational problem, but not if a training program is effective within itself (meet its own objectives) (Cascio, 1982; Dixon, 1990; Phillips, 1991).

Most of the available literature reports that Level 1 Evaluation is common across business and industry and that each level becomes less common moving from 1 to 4. "As recently as 1988, a report on forty-five Fortune 500 companies showed that although 100 percent used some form of participant reaction form, only 30 percent used measures of learning and only 15 percent used measures of behavior" (Dixon, 1990, p. 1). "It is probably safe to say that the bulk of training programs conducted in the United States are evaluated only at Level 1, if at all. Of the rest, the majority are measured only at Level 2" (Gordon, 1991, p. 21).

In a study reported by the American Society of Training and Development, "Behavioral change on the job was the least measured: among companies surveyed, only about 10 percent evaluated training at this level. Employee training was only evaluated at the results level about 25 percent of the time" (Carnevale & Schulz, 1990, p. s-24).

Robinson and Robinson's report (1989, p. 170-171) breaks evaluation out by the percentage of courses using each level of evaluation in relation to the percentage of training managers using that level of evaluation. In this report, only 22% of training managers use Level 2 in more than 80% of their courses and only 9% use Level 3 in more than 80% of their courses. Only 10% of the managers fail to use Level 2 at all, and 31% fail to use Level 3 in any of their courses. All three surveys, discussed above,

support the idea that the amount of evaluation completed at each of Kirkpatrick's Four Levels, (1975) decreases, moving from most often at Level 1 to the least often at Levels 3 and 4.

Problems with Available Research

Not all the literature agrees with the surveys discussed above. The Corporate HRD Executive Survey of the American Society of Training and Development in their Survey #11 Report (1989) said that for technical training, only 57% of the companies surveyed used participant reaction forms. "This report is based on 106 responses from Fortune 500 companies and private companies with sales of $500 million or more in sales" (1989, p. cover). This report listed Level 3 evaluation not at the 10 to 15% found in other literature, but 31% using performance records and 29% using supervisor feedback (Survey #11, 1989). Phillips (1991) discussed a study in which only 52% of the companies measured participant satisfaction, 5% measured the skills acquired after a learning experience, 17% measured application of skills on the job, 13% measured changes in the organization's functioning, and 13% did no systematic evaluation. The American Society of Training and Development Survey #11 Report (1989) and the study discussed by Phillips (1991) are numerically different from the other studies discussed. However, all the studies reported less than 50% of the companies perform evaluation above Level 1 and most studies place the use of Levels 2, 3, and 4 at approximately 25%.

While the information available reports consistently low rates of evaluation, it has not established how much evaluation is being done in business and industry in a

form sufficient enough for additional research to be based on the reported data. For instance, samples of convenience were used in the research for Survey #11 (1989) and Robinson and Robinson's report (1989) was also based upon a sample of convenience. As a result, the information in these surveys may only be generalizable only to the drawn samples. Studies have been conducted to gauge the use of evaluation in the fields of technical training and healthcare, but no studies specific to the field of financial services have been located. Therefore, the evidence available suggests a significant lack of evaluation within the financial services industry.

Summary

Training is an important tool in keeping companies competitive. Likewise, evaluation of the training is an important tool for developing and maintaining effective and efficient training programs. Evaluation can help justify training expenditures and provides the information required to decide the type and quantity of training required to maintain company functions. The available literature indicates that very few organizations use all four Levels of the Kirkpatrick model for evaluation. Since Kirkpatrick's scheme accommodates evaluation at the level of business results, this framework is appropriate for evaluating the financial impact of training and thereby, for providing management better information on the costs and benefits of training investments. Given the industry's continued focus on efficiency and cost containment issues, information from this study would clearly benefit the financial services industry by providing information on the current evaluation of training and how firms analyze the rate of return for their training evaluation. Finally, the financial services industry could

benefit from knowing how other organizations evaluate their training interventions. More specifically, understanding how such entities assess the return on their investments could contribute to enhancing the capacity of the organization to deliver efficient, effective and economical goods and services.

Significance of the Study

The effectiveness of training is a major issue. Donald Kirkpatrick (1994) provides three basic reasons for the importance of evaluation: to justify the existence of the training department by showing how it contributes to the organization's objectives and goals, decide whether or not to continue or end training programs, and gain information on how to improve future training programs. Each of these reasons focuses on the needs of the training department and the organization that it supports. Evaluating possible methods of addressing a performance problem requires a selection based on the ability of each possible intervention to address that problem. When choosing the best method to address a performance problem, the effectiveness of training must be compared with the effectiveness of other solutions. During tests of new methods for training to address a performance discrepancy, their value can only be assessed based on changes in job performance (Mager & Pipe, 1970). Specifically, training is used to correct a performance discrepancy; the outcome of training should be a change in performance. Without Level 2 and Level 3 evaluations, there is no objective basis for choosing interventions to address performance discrepancies, whether they be instructional methods or other techniques. Without Level 4 evaluation, an organization

cannot make informed decisions concerning the value of training to the organization's function or profitability.

The training literature is replete with books and articles discussing the value of evaluation, the need to evaluate, and the need to prove the value of training. However, the literature on the issue of training evaluation does not provide a clear picture of how the available models for evaluation are being used in training within the financial services industry. This study attempts to identify the degree of usage of evaluation in financial services training, identify impediments to implementing evaluations, and describe the organizational environment for evaluation.

The data collected in this study provides a base for the further study of evaluation in the area of financial services, as well as in other subject areas. These findings will serve to better positioning the United States workforce in the global economy and will also assist the financial services industry in improving training programs, clarifying the effect of training on organizational goals, and ultimately justifying capital investment in training (Carnevale and Schulz, 1990; Dixon, 1990; Kirkpatrick, 1994; Phillips, 1991).

Statement of the Problem

As organizations seek increased efficiency and effectiveness in an increasingly complex, operating environment, the field of Human Resource Development (HRD) is moving to the forefront (Stewart, 1997; Phillips, 1997b, 1997c). Training is an important aspect of the HRD field. Given such substantial training expenditures and that U.S. firms measure business results in financial terms, top executives now rightly demand to know the returns on their organizations' investments in training (Phillips, 1997b). Training and

development is big business, and as such, it should be evaluated in the same manner as other businesses, in terms of costs and benefits (Mosier, 1990).

This trend toward accountability emerges as one of the most significant and visible developments in the Human Resource Development field in recent years (Phillips, 1997c). However, despite rising emphasis on this establishment of accountability in human resource management systems, evaluation of training programs, faces significant challenges in implementation. HRD professionals cite numerous barriers to evaluation; among the most frequent of which are difficulty and cost (Phillips, 1997b, 1997c). Still, management wants to know the organizational impact of training and development programs, and employees want to know that their own investments in such programs produce results.

Additionally, training costs for regulatory compliance, risk and liability management, and technological practices represent significant and rising expenditures for the financial services industry. Given increasingly constrained profit margins, rising regulatory, competitive and consumer pressure, and rapidly changing organizational configurations, these entities are increasingly hard pressed to underwrite training and development initiatives.

Available research reveals the use of varied financial models and tools in training evaluation in several industries. (Mosier, 1992; Bartel, 1997; Phillips, 1997c). A few case studies have documented their use (Phillips, 1994, 1997a; Bartel, 1997; Stolovitch & Maurice, 1998). However, the general absence of both generally accepted and applied methods and valid, reliable empirical studies for measuring returns on training

investments further complicates organizations' responsiveness to these new and rising accountability demands.

Statement of the Purpose

The purpose of this study is to examine how employer-sponsored training is evaluated in the financial services industry, as represented by firms affiliated with DALBAR, Inc., by comparing the design variables, interactions, practices, and strategies recommended by the literature to the actual practices and strategies used by training professionals. Specific objectives include:

- Determine how employer-sponsored training is evaluated by firms in the financial services industry which are affiliated with DALBAR, Inc.
- Examine patterns, trends, models, and methods of training evaluation used among DALBAR, Inc. affiliated organizations in the financial services industry.
- Identify and explore barriers to implementation of training evaluation.

Research Questions

Research questions guiding the study are as follows:

(1) How is formal, employer-sponsored training evaluated by firms in the financial services industry, which are affiliated with DALBAR, Inc.?

(2) What impact do various organizational structures or characteristics have on the evaluation of training?

(3) What are some of the barriers to implementing training evaluation?

Assumptions

Certain assumptions have been made in the design of this study. The assumptions are not exhaustive but are intended to help further frame the study.

1. Training can produce changes in behavior and performance.
2. In today's business environment, formal, employer-sponsored training can elevate an organization's probability of economic survival.
3. Most organizations operate to maximize profit and training is provided at a cost to the organization, thereby increasing the importance of a return on investment.
4. Affiliation with DALBAR is an indicator of interest in raising standards of excellence within the financial services industry.
5. DALBAR affiliation represents organizations whose training personnel have current knowledge of industry practices and thereby report higher usage of evaluation than the total population of other entities.

Limitations

The sample for this study was drawn from organizations who subscribe to the services offered by DALBAR, Inc. The generalizability of this study's findings may be limited. The DALBAR sample of organizations represents a group with a potentially higher awareness of training issues due to their interest in standards of excellence within the financial services industry. However, given the limited amount of information on the state-of-the-art in training evaluation, this study's results could still prove useful to the entire population of financial services organizations in the United States. In addition, although every attempt will be made to eliminate ambiguous questions or unclear

terminology through accepted survey development methods, the survey respondent's understanding of every word on the survey is not absolutely assured.

Definition of Terms

The following definitions are provided to clarify specific terms in this study.

- American Society for Training and Development (ASTD): An association of training professionals. Membership at the time of this study was approximately 70,000.
- Balanced Scorecard: A framework to evaluate organizational performance by linking four perspectives: financial, customer, internal business, and innovation learning. Managers select a "limited number of critical indicators within each of the four perspectives" (Kaplan & Norton, 1993, p. 134).
- Benefits/Costs Ratio: A relationship between the benefits (returns) of an investment and the costs associated with the investment. The formula is expressed as follows: BCR = Program Benefits/Program Costs.
- DALBAR, Inc.: An independent financial services research and rating company. Develops standards for, and provides research, ratings, and rankings of intangible factors to the mutual fund, broker/dealer, discount brokerage, life insurance, and banking industries. They include investor behavior, customer satisfaction, service quality, communications, Internet services, and financial-professional ratings.
- Development: "Represents more of a cultural change and has a long timeframe for payback" with correspondingly higher risks for payback (Phillips, 1997b, p. 11).
- Education: Focuses on preparation for the next job and represents a medium timeframe and represents a moderate risk for payback (Phillips, 1997b).

- Employer-Sponsored Training: Consists of activities with specific learning objectives developed and delivered either within an organization by employees or through contracting with outside suppliers. These activities are designed to produce changes in a participant's skills, knowledge, or attitudes that directly impact on present job performance or job performance required to enter a new position (Twitchell, 1997).
- Evaluation: "A systematic process to determine the worth, value, or meaning of an activity or process" (Phillips, 1997c, p. 36). Other definitions will be discussed in the literature review.
- Financial Services: Includes mutual funds, annuities, retirement plans, life insurance, brokerage firms, managed accounts, and property and casualty services.
- Human Resource Development: Refers to the training, education, and development of an organization's employees.
- Internal Rate of Return (IRR): A financial analysis method that uses a time-adjusted rate of return. The IRR is the rate at which the present value of the inflows equals the present value of the outflows, or the rate at which the NPV is equal to zero (Friedlob & Plewa, 1996). This method determines "the interest rate required to make the present value of the cash flow equal to zero. It represents the maximum rate of interest that could be paid if all project funds had to be borrowed and the company was to break even" (Mosier, 1992, p. A-5).

- Kirkpatrick's Four Levels: The basic model for evaluation in business and industry based on four articles written in 1959 for Training and Development Journal. The four levels are reaction, results, on-the-job performance, and organizational outcomes.
- Net Present Value (NPV): A financial analysis method where all expected cash inflows and outflows are discounted to the present point in time, using a pre-selected discount rate. The present values of the inflows are added together, and the initial outlay (and any other subsequent outflows) is subtracted. The difference between the inflows and outflows is the net present value.
- Payback: Represents the length of time required to recover an original amount invested through the investment's cash flow and is expressed by the following formula: Payback Period = Initial Investment/Cash Flow Per Year (Friedlob & Plewa, 1996).
- Return on Investment (ROI): a financial analysis method that is used to determine if resources are being used profitably. Two common formulas are used to calculate ROI: Benefit/Cost Ratio (BCR) and ROI. These two formulas are as follows: BCR = Program Benefits/Program Costs and ROI (%) = Net Program Benefits/Program Costs x 100 (Phillips, 1997b).
- Training: Focuses directly on job-related skills, knowledge, and attitudes and represents a short timeframe for payback (Phillips, 1997b; Twitchell, 1997).

CHAPTER II

REVIEW OF THE LITERATURE

The first section of this literature review addresses the definitions, need, and frequency of training. The next section focuses on the definitions, purpose, and development of the practice of training evaluation. Finally, the third section explores the most prevalent model used to evaluate training, including the frequency of use. For purposes of this research, this review of the literature is restricted to evaluation used in business and industry. A narrower approach to reviewing the literature was taken because the focus on evaluation in education and for publicly funded education programs is different from that of training evaluation in business and industry. Business and industry generally focus on summative measures and neglect formative measures.

Training

Definition of Training

The definition of and activities associated with training are rapidly evolving. Though the words "training," "development," and "education" are often used interchangeably, Nadler (1970) differentiates the three terms as follows. "Training" is those activities "designed to improve human performance on the job the employee is presently doing or is being hired to do" (Nadler, 1970; p. 40). "Education" is defined as human resource development activities, which "are designed to improve the overall competence of the employee in a specified direction and beyond the job now held"

(Nadler, 1970, p. 60). "Development" involves preparation of employees to "move with the organization as it develops, changes, and grows" (Nadler, 1970, p. 88).

More recently, the definition of "training" has expanded due to changes in the relationship between training and traditional human resource (HR) roles and functions. Robinson and Robinson (1995) advocate a "shift from focusing on what people need to learn (training) to what they must do (performance)" (p. 7). Ulrich (1998), recently suggested repositioning human resources with his statement, "HR should not be defined by what it does but by what it delivers—results that enrich the organization's value to customers, investors, and employees" (p. 124). For this study, "training" will emphasize a process to change how people perform their jobs.

Importance of Training

The significance of evaluation is based on the importance of training. Training is an important tool in making a company competitive, for upgrading the skills required for new technologies, and for keeping the workforce employable.

Competing Globally

Financial services professionals must quickly learn and apply information from multiple bodies of knowledge: legal, administrative, technological, psychological, managerial, economic, and financial. Knowledge and skill gaps have been created by unprecedented change in technological advances, regulation, and compliance requirements. Employee flexibility and adaptation in complex, rapidly changing environments requires effective knowledge transfer and skill development (Jamieson & O'Mara, 1991; Stewart, 1997). Given that financial services organizations operate in a

volatile economy, effective training can both contribute to better delivery and reduce error and liability arising from inadequate acquisition and use of important knowledge and skills.

Upgrading Skills

To acquire higher-paying positions within the financial services industry, employee skills must be constantly upgraded. The level of knowledge required by workers in today's business environment is constantly increasing, and as a result, the number of positions requiring specific skills is also rapidly increasing. Skilled workers must be either trained or retrained to address the changing needs of the financial services industry. "Technology will introduce change and turbulence into every industry and every job. In particular, the necessity for constant learning and constant adaptation by workers will be a certain outgrowth of technological innovation" (Jamieson & O'Mara, 1991). Without additional training, today's workers will no longer be employable except in low paying, low skill jobs (Jamieson, 1991). No matter what agency or method is used, workers must learn new skills, accumulate the necessary knowledge and apply the skills and knowledge gained in a new work environment or face unemployment.

Benefits to Employees

Training also provides direct benefits to employees. On a broader perspective, the United States and the financial services industry benefits from the effects of training which updgrades knowledge and skills, but employees also benefit at a personal level. "Ultimately because of the growing importance of skill and its general applicability across institutions, workers who pay attention to education, training, and work

experience can increase their control over their working lives" (Carnevale, 1991, p. 140). Employees may not only gain financial independence based on their increased value to an employer, but as the quantity of training increases, their ability to work at various tasks also increases and allows the employee a greater number of employment options (Carnevale, 1991).

Frequency of Training

The training decision can be a difficult one, as the level, frequency, and source of training must be considered based on cost and anticipated productivity gains. Employers are continually faced with the decision of whether to make additional investments in training within their establishments or to purchase skills from the outside (Lynch and Black, 1995).

Organizations and individuals often fail to invest enough in training due to doubts about recovering their investment in training. Four factors contributing to this uncertainty are: employee mobility; reductions in the workforce due to market fluctuations; short-time horizons for training investment decisions; and lack of information about defining and measuring knowledge and competencies.

The ability of employees to take acquired skills with them to other jobs is one factor believed to limit the amount of training conducted by employers. Investments in specific training are limited because training investments are lost whenever unforeseen market conditions force firms to reduce their workforce, and there is no method available to protect against this loss.

Training expenditures are customarily treated as operating costs, rather than as investments. In contrast to physical capital investments, which are depreciated over the useful life of the asset, the timing of training costs is not linked to the expected benefits of training.

Lack of information about the availability, costs, and quality of training also limits investment. As a result, it is difficult to measure the costs and benefits of training, to estimate the loss to a company when a trained employee leaves, or to reliably reflect the value of a trained employee's knowledge.

As a management tool, training serves many purposes, such as focusing on certain issues, promoting change, reducing risk, building teams, disseminating information, and developing skills. With such a wide variety of purposes, the need for evaluation of training results serves many roles as well. Increasingly, training is coming under scrutiny and organizations are looking more closely at assessing impacts. Training is being seen as a tool to effect strategic change and a means to achieve a competitive edge. With such an important investment, organizations see the value of monitoring how the investment is paying off, hence the importance of training evaluation.

Evaluation

Definition of Evaluation

Definitions of evaluation, particularly training evaluation, overlap in many ways. Tyler (1942) saw evaluation as a determination of whether program objectives had been achieved, e.g., a comparison of intended outcomes with actual outcomes. Similarly,

other researchers have defined evaluation as the comparison of initial objectives with real program outcomes using both quantitative and qualitative methods to assess the results (Stufflebeam, 1971; Phillips, 1997c). Brinkerhoff (1981) later extended the definition of evaluation to encompass "the systematic inquiry into training contexts, needs, plans, operation and effects" (p. 66). Additional nuances have been offered in more recent years. According to Feldman, effective evaluation measures both the training and the trainee (1990). Swenson (1991) defined evaluation as "disciplined inquiry undertaken to determine the value, including merit and worth of some entity" (p. 81). A definition by Newby (1992) simply states, "the assessment of the worth of training" (p. 24). Yet another comprehensive definition of evaluation may be provided by Basarab and Root (1992) as a systematic process converting pertinent data into information for measuring the effects of training, helping in decision making, documenting results to be used in program improvement, and providing a method for determining the quality of training. (p. 2)

Evaluation, as defined by Scriven (1967) and discussed by Worthen et al (1997), is determining the worth or merit of an evaluation object. Worthen and others' expanded definition states that "evaluation is the identification, clarification, and application of defensible criteria to determine an evaluation object's value (worth or merit), quality, utility, effectiveness, or significance in relation to those criteria" (p. 5). The steps of evaluation are (a) determine the standards for judging worth, (b) collecting relevant information, and (c) applying the standards to determine worth. This process leads to

recommendations intended to optimize evaluation objects in relation to their intended purposes (Worthen et al, 1997).

If the definition of evaluation still seems vague, it may be because elusive terms such as "value" and "judgment" are often used when defining the goals and processes of evaluation. Scriven (1999) has suggested that this lack of definition contributes to an overall misunderstanding of how and what to evaluate. According to Scriven, evaluation has historically focused on at least three questions regarding an intervention: (a) Is it worth it? (b) Is there a better way to do it? (c) Did it have the desired impact? Shrock & Geis (1999) suggest that even though there are various activities and contexts in which evaluation is conducted, for the most part, information is being collected that allows one to make a judgment about value.

Despite these various enhancements in meaning, it is clear that evaluation involves a planned effort to measure what happens in training, how it affects trainee knowledge, skills, abilities, and performances, and training's impact on organizational outcomes.

Purpose of Evaluation

Defining the purpose of evaluation is sometimes more informative than defining the term. The uses of evaluation are numerous. For instance, evaluation can be used to improve an object. Evaluation can also be used to provide information for decisions about programs such as: (a) whether or not to continue the program, (b) whether to add or drop specific techniques in the program, (c) whether similar programs should be instituted elsewhere, (d) how to allocate resources among competing programs, and (e)

whether to accept or reject a program approach or theory (Weiss, 1972; Worthen et al, 1997).

Bramley and Newby (1984) identified five purposes of evaluation: feedback, control, research, intervention, and power games. Brinkeroff (1981) suggests that the purpose of evaluation should be determined by the degree to which it is designed to change something in the environment. He links evaluation to three aspects of human resources programming: planning, delivering, and recycling. For our purposes, evaluation within business and industry has the primary purpose of providing summative information about the effect of a program on the individual and their working environment, and the organization (Swanson & Holton, 1997).

Few research-based studies were found on why evaluation was important. Clegg (1987) asked 43 chief training officers at Fortune 500 companies why they thought evaluation should be done. The primary reasons given were (ranked in order of importance): (a) to find out how training can contribute more, (b) to determine if there is a payoff, (c) to measure progress toward objectives, (d) to justify existence of the training function, (e) to find out where improvement is needed, and (f) to establish guidelines for future programs.

Development of the Practice of Training Evaluation

Although training evaluation is the specific focus of this study, accountability, in general, continues to emerge as a significant issue in the field of Human Resources, both in management and development (Chalofsky & Reinhart, 1988; Phillips, 1996g; Hilbert, Preskill, & Russ-Eft, 1997). Realization that human resources are the greatest single

expenditure in most organizations coupled with "the vast potential for using human resources to enhance productivity, improve quality, spur innovation, contain costs, and satisfy customers" creates a great challenge (Phillips, 1996g, p. xiv). Understanding where training evaluation began and how evaluation of training can contribute to accountability in human resources can provide important information for organizations interested in enhancing the potential of their human resources and increasing their effectiveness within organizations.

Frederick Taylor (1915), widely considered to be the founder of corporate management theory, set the stage for a dialogue on human resource management with the publication of *The Principles of Scientific Management* in 1915. At the core of his Scientific Management theory are these maxims:

- Simplify each task
- Reduce conflict
- Cooperate
- Increase output
- Develop people to their capabilities to do the simplified task they have been given (Weisbord, 1987)

The purpose of training during the Taylor era was to assist employees in learning and perfecting rudimentary tasks. However, Henry Gantt disagreed with Taylor's vision of employee training. According to Marvin Weisbord, Gantt did not attempt to overcome

employee skepticism to change; rather, he had machinists experiment with new methods until they discovered how to earn a bonus on the basis of high performance. “Whatever we do,” wrote Gantt, “must be in accord with human nature. We cannot drive people; we must direct their development” (Weisbord, 1987, p. 42).

In the mid- to late-1940s, Kurt Lewin gained popular recognition for his practical techniques in organizational learning. Lewin’s work may be characterized by one defining principle: We are likely to (a) modify our own behavior when we participate in problem analysis and solutions, and (b) carry out decisions when we have helped make them (Weisbord, 1987). Lewin supported a new style of corporate leadership, one that encouraged group learning, de-emphasized authoritarian leadership, and focused on analyzing organizational forces that impeded change. Although Lewin’s approach generated a great deal of excitement about training as a management strategy, very little was known about the effectiveness of training.

In 1949, W. McGehee conducted an extensive review of the existing research in the field of training. He stressed the importance of the following:

- Trainee needs assessment
- Trainer training
- Evaluation of training effectiveness (McGehee, 1949)

In 1992, Scott Tannenbaum and Gary Yukl developed an extensive review of the existing corporate training literature. They found that in the years since Lewin’s work,

training and staff development in the private sector had matured into a legitimate discipline that used research, theory, and informed practice. Yukl and Tannenbaum found training techniques and theory to be much more complex than those of Taylor's day. Where Taylor sought to increase productivity through increased management planning, today the most innovative staff development efforts focus on transforming the organization into a place where learning is continuous. According to Yukl and Tannenbaum (1992), the focus of staff development between the 1970s and the early 1990s shifted from training on a specific skill to integrating training with perspectives on organizational theory and individual differences.

Kirkpatrick's Four Levels of Evaluation Model

In terms of training evaluation, it seems an evaluation framework developed by Donald Kirkpatrick (1975) has received the most attention over the past forty years. "Almost every discussion of training and development evaluation begins by mentioning Donald Kirkpatrick's well-known four-levels of evaluation" (Medsker & Roberts, 1992, p. 1). His training evaluation framework is currently considered the standard training and development program evaluation framework in use today (Kaufman & Keller, 1994; Bramley & Kitson, 1994). Foxon (1989) provides further evidence of this in a review of relevant Australian, British, and American journals from 1970-1986 conducted to better understand what kind of evaluation activity was being reported. The Kirkpatrick levels were mentioned in one-third of the articles, and very few other models were mentioned at all.

During the late 1950s, while at the University of Wisconsin, Kirkpatrick wrote a series of four articles called "Techniques for Evaluating Training Programs" which were published in the American Society of Training and Development journal, *Training and Development.* Kirkpatrick's reason for developing his model was to "clarify the elusive term 'evaluation'" (Kirkpatrick, 1994, p. xiii). Kirkpatrick's four-level model, referred to as "stages, criteria, types, categories of measures, and most commonly, levels of evaluation" (p. 110), has been enhanced over the years and incorporates the various approaches of training and development professionals regarding the purpose of evaluation.

Kirkpatrick himself now refers to these techniques as the four-level model of evaluation (p. 110), which includes: (1) reaction or customer satisfaction; (2) learning of knowledge, skills, and/or attitudes; (3) behavior or transference of knowledge, skills, and attitudes to the workplace; and (4) results. Kirkpatrick (1998) suggests that these levels are intended to primarily assist in assuring the relevancy of the effects of training on an organization. A secondary purpose of the classification is to assist in evaluating the design and implementation of training so that it can be continuously improved. Each of these levels will briefly be discussed in the following paragraphs.

Level I: Participant Reaction

First, Level 1 evaluation involves measuring trainee or participant reaction. According to Kirkpatrick, "reaction may well be defined as how well the trainees liked the program" (1975, p. 1). Reasons for conducting a reaction level evaluation include valuable feedback for future programs, feedback for the trainers, quantitative

information for managers, and data for use in setting future program standards. Reaction-level evaluations also allow data gathering on several areas including the trainee, the facilitator, the facilities, the schedule, and other aspects of the course (Kirkpatrick, 1994). It is the most frequently used type of evaluation because it is easy to administer and is not particularly threatening to trainers and trainees (Dean, 1995).

Kirkpatrick saw participant reaction evaluation as important for three reasons: (a) management decisions on whether to continue funding training programs are often made based on comments from the participants, (b) participants can provide information that would help to improve programs (Kirkpatrick, 1975), and (c) participants "must like training to receive the maximum benefit from it" (Kirkpatrick, 1975, p.4).

The literature supports the first reason: managers make decisions based on participant comment. "If the true purpose of a training program is to reward good performers or renew sagging spirits at company expense, an extensive performance based training evaluation is misguided. A simple reactions measure, or 'smile sheet,' may be all that is really necessary" (McEvoy & Buller, 1990, p. 40).

The second reason, improving programs, may be viable only in the sense that it supports the first. If increasing the participants' enjoyment of the program does not negatively affect the program's effectiveness or efficiency, then such changes can be seen as improvements.

The third reason, which ties enjoyment of the training to receiving benefits from the training, has not been fully supported by the literature. Jones in his "list of 26 limitations of end-of-course ratings" (1990, p. 20) lists as number one: "ratings don't

correlate with transfer of training. No available research shows a clear relationship between end-of-course ratings and the extent to which participants apply training on the job" (Jones, 1990, p. 20). Also, "Studies of the relationship between actual learning achieved in a course and how participants complete reaction forms indicate such a relationship is either very small or nonexistent." (Dixon, 1990, p. 28)

Based upon the results of the aforementioned studies, it would appear that although participant reaction forms provide information that may be used to make the learning process more enjoyable and fulfilling, they do not evaluate the effectiveness of training. However, most training managers would like to know that the participants enjoyed a particular program. "What your measuring with a happiness sheet, he…(Kirkpatrick)…says, is initial customer satisfaction with the training experience…. The sheet only becomes sneer worthy if you pretend it is telling you what is happening at higher levels of evaluation" (Gordon, 1991, p. 21).

Level 2: Learning outcomes

Level 2 evaluates the learning that took place during training. "Learning is defined in a rather limited way as follows: What principals, facts, and techniques were understood and absorbed by the conferees? In other words, we are not concerned with the on-the-job use of these principles, facts, and techniques" (Kirkpatrick, 1975, p. 6). Evaluation at this level can only assure that the skills and knowledge to perform a behavior on the job have been learned. However, it cannot assure that the employee: (a) will have an opportunity to perform a behavior, (b) know when to use the learned behavior, or (c) will use the behavior even if the opportunity is recognized.

One method to measure an increase in trainee knowledge is through the use of pre- and post-testing. Level 2 evaluations of this nature are used less frequently than level one largely because it requires more effort to appropriately design a valid test, especially if the results will be used for decision purposes (Shrock and Geis, 1999). Jack Phillips (1997c), in his chapter on evaluation design, discusses pretest-posttest designs and discuses validity issues based on testing effects and threats to internal validity. Even if this form of evaluation is well-designed and addresses validity issues, the best an evaluation at this level can hope to do is learn whether the direct objectives of the training program were reached. Attaining training goals is necessary but not sufficient to guarantee that the goals of a program are met.

> "Instructors tend to think that if participants have mastered a skill during the learning event, they are adequately prepared to implement it on the job…However, research on the transfer of training does not support the view that the training adequately prepares participants to transfer the skills to the workplace." (Dixon, 1990, p. 90-91)

Level 3: Behavior changes

The third level of evaluation, Level 3, measures "changes in behavior on the job" (Kirkpatrick, 1975, p. 10) and is also sometimes referred to as transfer of training. The Level 3 evaluation is considered to be much more difficult to measure, as it seeks to identify changes in knowledge, skills, and/or attitudes in the workplace attributable to a specific training program. Methods for conducting an evaluation at this level include direct observation, performance contracts, and surveys and/or interviews of peers,

supervisors, and direct reports. Kirkpatrick explains that "evaluation of training programs in terms of behavior is more difficult than the reaction and learning evaluations" (Kirkpatrick, 1975, p. 10). It is conducted with a similar or slightly higher frequency than Level 2 (Twitchell, et. al., 2000).

One of the most straightforward ways to measure changes in performance due to training is to use existing documentation. Documentation of output, quality of output, waste, time to complete a specific job, uptime of machinery, and other like measures provide a source of information to detect changes in performance. They each can be used as a direct measure of change in job performance (Phillips, 1991; McEvoy & Buller, 1990). If this data is already being collected, the cost of evaluation is only the cost of reducing existing data to a usable form (Phillips, 1991). Therefore, the expense of data collection for training evaluation can be reduced using existing data.

Level 4: Results

Level 4 of Kirkpatrick's model reflects the evaluation of training's impact on business results: "increasing sales, reducing accidents, reducing turnover, and reducing scrap rates" (p. 70) and the data is often collected via operational performance data, financial reports, or perceptual data. The goal of this evaluation is to determine the impact of an intervention on the organizational bottom-line. If the program's aim is "tangible results, rather than to teach management concepts, theories, and principles, then it is desirable to evaluate in terms of results" (Kirkpatrick, 1994, p. 70).

Kirkpatrick offered little as to methodology for this level of evaluation. It is conducted very infrequently relative to the other levels (Twitchell, et.al., 2000) and it is

extremely difficult, however, if not impossible to isolate effects of training that do not have specific, measurable outcomes, e.g., leadership or diversity training (Kirkpatrick, 1998).

It is worth noting that there is a shifting of conceptual gears between the third and fourth elements in Kirkpatrick's framework. The first three elements center on the trainees; their reactions, their learning, and changes in their behavior. The fourth element shifts to a concern with organizational payoffs or business results. Kirkpatrick is also careful not to imply that a complete cycle of evaluation from Level 1 to Level 4 can always be completed. He suggests that approximations of benefits in non-measurable terms may be substituted for operational measures if the politics and costs of obtaining operational data and transforming them to financial measures are too complicated.

Challenges to Kirkpatrick's Model

One question arising over the years has been whether Kirkpatrick's model is hierarchical, that is, does measurement at a higher level require measurement at the lower levels? Research conducted on the Kirkpatrick evaluation model has indicated that the levels are not hierarchical (Alliger & Janak, 1989; Clement, 1978). For example, in the evaluation studies they examined, a high course satisfaction rating (Level 1) did not cause a high level of skill acquisition (Level 2) which in turn did not cause a high level of skill transfer to the job (Level 3), etc. They cite this research finding to refute what they believed was a common perception amongst training evaluators that the levels were causally linked. Arguments have also been made that these finding validate the belief

that the four levels are measuring quite independent constructs and therefore all four levels should be conducted (Holton, 1996).

Holton suggests that the "flawed four-level evaluation model" is actually harmful to the evaluation process since it focuses only on outcomes and does not take work environment and motivational influences on learning transfer into account. He suggests that Kirkpatrick's framework is difficult for researchers to test theoretically, and inappropriate for practitioners to use as a continuous improvement tool since it does not specify how environmental and motivational variables affect individual transfer of learning.

Expansion of Kirkpatrick's Levels of Evaluation

Several theorists have tried to improve the Kirkpatrick model by adding criteria levels. Some theorists (Hamblin, 1974, Kaufman & Keller, 1994) seek to add a fifth level to the Kirkpatrick model, which measures social or cultural costs and benefits. Level 5 evaluation is intended to go beyond the value of the organization's products and services to the external environment and society in which it operates. Kaufman and Keller (1994) advocate the need to address "performance improvement interventions such as strategic planning, organization development . . ." (p. 373) and output quality and usefulness to the client and/or society as a whole adding a fifth level to the Kirkpatrick model. It is an attempt to answer the question: "Is what we deliver contributing to the good of society in general as well as satisfying to the client?" (Kaufman, et al, 1995, p. 11).

Hamblin has also added a fifth level of ultimate value or cost benefit and emphasizes that training evaluation is a tool to improve society's outcomes as a whole (Hilbert, Preskill, Russ-Eft, 1997). Ultimate Value is defined as results that are most important to the organization. In the case of many organizations in a capitalist system, ultimate value is economic, i.e., shareholder value and profits, benefits which are measured in dollar terms that are compared to the cost of an intervention. Increasingly, more organizations appear to be redefining ultimate value as a blend of economic and organizational capacity-building (Beer and Nohria, 2000).

As an alternative to adding a fifth level, other researchers have emphasized a slightly different set of four levels or even added a sixth level. Swanson and Sleezer in 1987 (op. cit., 1997) outlined four levels: satisfaction, learning, job/organization performance, and financial performance. Brinkerhoff's six-stage model modified the levels by addressing timeframe: "goals setting, HRD program design, program implementation, immediate outcomes, intermediate or usage outcomes, and impacts and worth" (op. cit., 1997).

Another approach tries to incorporate multiple perspectives into training evaluation. Kaplan and Norton's (1996) Balanced Scorecard, which has similar categories: customer perspective, financial perspective, internal growth perspective, and learning and growth perspective. The Balanced Scorecard adds non-financial measure to traditional organizational measures. The Balanced Scorecard emphasizes the interactive nature of different perspectives on training evaluation in determining whether the training has had a beneficial outcome.

Financial Analysis of Training Programs

The most frequent extension or expansion of the Kirkpatrick model draws attention to financial returns on the training investment. Focusing on the costs and benefits emphasizes the senior management perspective on evaluating training and financial evaluation can provide important information to senior managers who make the decisions on whether to increase or decrease funding for training within their organizations. Shelton and Alliger (1993) state, "There is no escaping it: Increasingly, trainers are having to account for training dollars spent. And they are having to do it in terms of business results and return on investment" (p. 43).

Thirty years ago, a 1969 study by Sheffieck provided several recommendations for future research including the replication of his survey of training evaluation for management development training in other corporate groups—utilities, merchandising firms, life insurance companies, and commercial banks. In addition, Sheffieck recommended further research regarding the dollar value of the management training function and a "payoff matrix approach to evaluation that can be understood by top management" (1969, p. 100). Interestingly, the Shieffieck concerns and issues of thirty years ago mirror current concerns and issues (Phillips, 1996a, 1996b, 1996c, 1996d, 1996e, 1996f, 1996g; Swanson & Holton, 1997).

A related variation of the Kirkpatrick model argued for by Phillips (1997a, 1997b) is the splitting of the fourth level (business results) into two parts, thereby adding a fifth level- return on investment (ROI). He sees Level 5 evaluations as the process of converting Level 4 evaluation indicators into monetary terms for the purpose of

calculating the ROI of training dollars. In other words, ROI is essentially a method for collecting data regarding the impact of training and calculating the monetary return of this impact on the organization.

While training's impact can be difficult to measure, training departments can still be held accountable for financial results (McGough, 1998; Phillips, 1995; Gutek, 1988). "The tools, techniques, and a reliable process are available to measure the return on investment in training" (Phillips, 1995, p. 10). Criteria for an effective evaluation of training at the ROI level emphasize conservative approaches. According to Phillips (1997b), an effective ROI process is simple, economical, credible, theoretically sound, appropriate with a variety of HRD programs, flexible, applicable with all types of data, and inclusive of program costs. Further, an effective ROI process must account for other factors that may have influenced output variables, and the ROI process must have a proven track record (Phillips, 1997b).

In summary, advocates for financial evaluation of training may differ in their approach but agree that it is possible (Phillips, 1997a, 1997b, 1997c; Bartel, 1997; Parry, 1996, 1997; Noonan, 1993; Pine & Tingley, 1993; Shelton & Alliger, 1993; Mosier, 1990, 1992).

Use of Evaluation Models

Upon reviewing professional literature, it was noted that almost every training resource mentions Kirkpatrick's Four Levels as the most prevalent evaluation model. The other models that were occasionally mentioned in the professional literature were the CIPP Model (Stufflebeam, 1971), the CIRO Model (Warr, Bird, & Rackham, 1970),

the Brinkerhoff Model (Brinkerhoff, 1988), and the Phillips Model (Phillips, 1997). An older study by Galvin (1983) of 225 members of the ASTD in 1983 revealed that 56% preferred the CIPP model and 36% preferred the Kirkpatrick model. In recent literature, circa 1987-2002, however, there is almost no mention of the CIPP model.

Bassi, et. al. (1996) found that 96% of companies surveyed used some form of the Kirkpatrick framework to evaluate training and development programs. A more recent survey, the 1997 fourth quarter National HRD Executive survey conducted by the ASTD (1998a,b), found that 67% of organizations that conduct training evaluations use the Kirkpatrick model. The survey also found that larger organizations were much more likely to use the Kirkpatrick model than smaller organizations. The Brinkerhoff, Phillips, and in-house models were also mentioned as models used in industry, but they were used sparingly.

Research has revealed that the most commonly conducted evaluation method is obtaining trainee reactions (Bassi, Benson, & Cheney, 1996; Saari, Johnson, McLaughlin, & Zimmerle, 1988). Twitchell, et.al. (2000) recently reviewed a number of such studies that have been conducted over the past 40 years as part of their own investigation of the level of evaluation of technical training. They found that the percentage of organizations that reported using Level 1 ranged from 86-100%, Level 2 use ranged from 71-90%, Level 3 from 43-83%, and Level 4 from 21-49%. The authors concluded that "a) many organizations use Levels 1 and 2 evaluation for at least some programs; b) fewer than half even try Level 4; and c) only a small percentage of programs receive Levels 3 and 4 evaluation" (Twitchell, et.al., 2000).

Esque and Patterson (1998) reviewed twenty-two case studies of performance improvement projects. Of these, seven reported results at the organizational level, two reported impacts on the organization in terms of dollars in revenue, twelve reported improved job performance, three reported learning form training, and no one reported reactions to training.

As mentioned earlier, training evaluation that incorporates financial analysis is both generally accepted and widely recognized as beneficial, but its implementation has lagged behind (Phillips,1994, 1995a, 1995b, 1997a). Researchers have found problems when companies attempt to implement financial analysis of training programs. Mosier's (1990) review of the most commonly used financial analysis techniques identified two independent studies with similar findings. Both studies used payback time, average rate of return, present value or present worth, and internal rate of return. However, it was not clear to Mosier (1990) "why so few financial analysis studies are conducted or published, particularly in view of the need to show how training results affect the productivity or profitability of the organization" (p. 58). She suggested several reasons for this situation: (a) many aspects of training are hard to quantify, (b) no readily available model, (c) time lag between event and outcome, and (d) human resource development (HRD) managers' general depth of knowledge in financial analysis techniques. More research on knowledge of financial models, including those in the financial services industry may identify useful approaches to bridge this gap.

Clegg (1987) asked 43 chief training officers at Fortune 500 companies why evaluation is not done and the responses were: (ranked in order of importance): a) lack

of time, b) lack of adequate methodology, c) lack of standards and yardsticks, d) lack of money, e) lack of necessity to evaluate, and f) lack of expertise. Grider et al. (1990) asked 212 survey respondents to rank their reasons for not using an evaluation technique that respondents believe is most effective. The reasons given for the behavior are listed below:

1. The most effective technique is too time-consuming or expensive.
2. Lack of expertise in the technique or the data required to implement it.
3. Lack of top management commitment to training evaluation.
4. Difficulty in isolating behaviors changed as a result of training.
5. Top management requirements for use of a particular evaluation technique.

Twitchell (1997), in his study focusing on technical training, and Hill (1999) in her study focusing on the healthcare industry, explored the reasons for not evaluating at each of Kirkpatrick's four levels. These findings are listed in tables 2.1 and 2.2 below:

Table 2.1

Reasons for Not Evaluating at Each Level – Technical Training.

	Not Required	Little Value	Cost	Not Legally Required	Lack of Training	Time
Level 1	29%	19%	11%	10%	9%	8%
Level 2	37%	20%	18%	14%	23%	22%
Level 3	44%	14%	37%	7%	34%	N/A
Level 4	42%	15%	37%	8%	40%	5%

Table 2.2

Reasons for Not Evaluating at Each Level – Healthcare Industry.

	Not Required	Little Value	Cost	Not Legally Required	Lack of Training	Time
Level 1	21%	27%	9%	17%	12%	8%
Level 2	27%	27%	24%	14%	18%	17%
Level 3	29%	22%	48%	9%	29%	9%
Level 4/ROI	39%	25%	45%	9%	59%	10%

Training Evaluation in the Financial Services Industry

The importance of training evaluation may be especially critical in industries that face tremendous cost pressure, a challenge clearly applicable to the financial services sector. Since such undertakings require new knowledge and skills, they depend heavily on successful design, deployment and assessment of training. Financial services professionals must quickly learn and apply information from multiple bodies of knowledge: legal, administrative, technological, psychological, managerial, economic, and financial. Knowledge and skill gaps have been created by unprecedented change in technological advances, regulation, and compliance requirements. Employee flexibility and adaptation in complex, rapidly changing environments requires effective knowledge transfer and skill development (Jamieson & O'Mara, 1991; Stewart, 1997). Given that financial services organizations operate in a volatile economy, effective training can both contribute to better delivery and reduce error and liability arising from inadequate acquisition and use of important knowledge and skills.

Considering the financial services industry's increased need for training, increased demand for accountability will likely promote greater emphasis on evaluating training results, particularly when "accountability" is expressed and understood in the financial language of business. HR/HRD programs usually targeted for an ROI impact analysis are those perceived to add significant value and are linked to organizational goals and strategic objectives (Hill & Phillips, 1997; Phillips, 1997a).

Summary

Several issues pertinent to this study of training evaluation emerge from the literature review. There is limited information about the application of evaluation of training. This reduced information, despite heightened accountability issues, may signal the challenge of putting theory into practice. There are many more references advocating or presenting theoretical as well as practical methods, techniques, and procedures than references reporting specific applications of training evaluation (Heinrich, 1994).

The literature review indicates that training professionals are being called upon to provide evaluation of training. Further, the training professionals are being asked to evaluate the organizational impact of training at a financial level. Evaluation of training at the organizational impact level involves, at a minimum, knowledge of training and development, evaluation, statistics, finance/accounting, and project management, as well as the organization's culture and business environment (Phillips, 1996g, 1997b, 1997c; Hilbert, Preskill, & Russ-Eft, 1997).

Guidelines exist for determining training costs and cover both direct and indirect costs of training (Zemke, 1982; Phillips, 1996a, 1996b, 1996c, 1996d; 1997a, 1997b,

1997c). However, few guidelines exist for determining the returns or financial benefits of training. Although there are several approaches to financial evaluation of training presented in the literature, it is not known the extent to which any of the models are applied in practice. Few case studies are available in the literature illustrating applications of training impact studies.

Of the training impact studies available, few exist within a single industry (Bartel, 1997; Hill, 1999) or within a specific type of training (e.g., technical, management development, and computer-based training) (Twitchell, 1997; Phillips, 1997a, 1997b).

Evaluation of training to date has focused on the four-level Kirkpatrick model. While most evaluation models have used the four-level model as a framework, there is a need to explore specifically how financial services organizations evaluate their training. Focused research in the financial services industry may uncover different methods, models, and frameworks of evaluation in use.

CHAPTER III

METHODOLOGY

Purpose of the Study

The purpose of this study was to determine how employer-sponsored training is evaluated in the financial services industry by firms affiliated with DALBAR, Inc., using Kirkpatrick's four-level evaluation model as a framework. Patterns, trends, models and methods of training evaluation among these financial services organizations were examined. Finally, barriers to implementation of training evaluation were identified and explored. Research questions guiding the study were as follows: (1) How is formal, employer-sponsored training evaluated by firms in the financial services industry, which are affiliated with DALBAR, Inc.? (2) What impact do various organizational structures or characteristics have on the evaluation of training? (3) What are some of the barriers to implementing training evaluation?

Research Design

This study used survey methodology, which involves gathering original data by using questionnaires, tests, and/or interviews, administered either by mail or in person where individual people are the units of analysis from a population typically too large to observe directly (Rubin & Babbie, 1993). This methodology is widely used in education (Wiersma, 1995), is well suited to studies where several variables are analyzed simultaneously using a large number of cases, and allows flexibility in "developing operational definitions from actual observations" (Rubin & Babbie, 1993, p. 353). Using

a survey for this particular study had several advantages including acceptance of the methodology due to widespread use of survey research in the field of education, rapid turnaround in data collection and dissemination, and facilitation of the identification, availability and accessibility of the research sample.

Population and Sample

The total population for this study consisted of all financial services organizations providing education and training. The target population was limited to the financial services organizations that subscribe to the services provided by DALBAR, Inc. Affiliation with DALBAR is considered to be an indicator of interest in raising standards of excellence within the financial services industry. Therefore, DALBAR affiliation was assumed to represent organizations whose training personnel had current knowledge of industry practices and thereby would report higher usage of evaluation than the total population of other entities.

The sampling design for this population required three steps. First, a list containing names DALBAR affiliated firms was obtained from DALBAR, Inc. The firm names were then cross-referenced with the membership lists of the American Society for Training and Development (ASTD) and the International Society for Performance Improvement (ISPI) to obtain the names of individuals within those firms that were members of either of these organizations. Membership in these organizations was considered an indicator of interest in training and development. In a similar study conducted with ASTD members, Twitchell (1997) reasoned that the ASTD forum sample should represent organizations whose training personnel have current knowledge

of industry practices and thereby report higher usage of evaluation than the total population of financial services entities. The master list was then examined to eliminate any problematic cases due to duplication and inaccurate or incomplete information (Salant & Dillman, 1994). Second, the mailing list was further refined through a process of identifying only those organizations identified by the researcher as situated in the financial services industry. No attempt was be made to eliminate multiple members from either the same organization or the same organization within the same geographical region. Third, surveys were directed towards those identified as 'directors' or 'managers' within the training and development departments in these organizations.

Hypotheses

Based on what is known about training evaluation in the U. S. financial services industry, the following hypotheses were tested.

H1: The majority of formal, employer-sponsored training will be evaluated at Level 1 (reaction) and Level 2 (learning).

H2: There will be no generally accepted method of evaluating return on investment of training.

H3: Differences in the percentage of evaluation conducted at the four levels will be associated with differences in organizational characteristics.

H4: Differences in barriers are associated with the level of evaluation conducted.

Instrumentation

A review of the literature yielded a survey instrument to fit this study's purpose. A survey instrument, "Evaluation: Present Practices in U.S. Business and Industry: Technical Training," was used in a similar study of training evaluation which focused on technical training (Twitchell, 1997). Additionally, an amended version of this instrument was used in a similar study for the field of healthcare (Hill, 1999).

Dr. Skip Twitchell co-authored the technical training evaluation survey with Dr. Elwood F. Holton, III, and Dr. Jack Phillips. Dr. Holton is president emeritus of the Academy of Human Resource Development and a noted author on training evaluation. Dr. Phillips is also considered to be an expert in the field of return-on-investment. Content and face validity of the "Evaluation: Present Practices in U.S. Business and Industry: Technical Training" survey was established when the survey was created through a panel of experts including members of a graduate class in research, two experienced statisticians, training managers, measurement and evaluation specialists, and two business and industry experts on training evaluation (Twitchell, 1997, p. 44). "Evaluation: Present Practices in U.S. Business and Industry: Technical Training" contained questions about the organization's use of evaluation, the respondent's organization, and demographic information on the respondent. Wording on the survey that was specific to technical training was adjusted to reflect the financial services industry research context.

The survey consisted of seven sections. Questions concerning the percentage of programs evaluated at each Level, types of evaluation methods used, and reasons for not

conducting evaluations were included in Sections one through four. Sections five consisted of questions used to determine the training practices of the organization. For example, the methods of program delivery, planning of evaluation, reporting of evaluation results, the purpose of the training, level of training achieved by those involved in the evaluation process, and the relationship of evaluation to the budgeting process. Section six collected information on the respondents' thoughts regarding the role of evaluation in the area of improving training and demonstrating the value of training. Section seven gathered demographic data.

Validity and Reliability

The instrument was adapted from one used in two previous research studies (Twitchell, 1997; Hill, 1999). According to Twitchell (1997), during the development of the instrument, an effort was made to utilize common terms to increase the level of clarity for the respondents. The survey was also reviewed by a group of experts including the members of a graduate class in research, academic researchers, training managers, training specialists, and two business and industry experts on training evaluation (Twitchell, 1997).

Hill (1999) used an adapted version of this instrument in her study on the healthcare industry. Content validity was reviewed at that time using a group of five experienced training professionals. Each professional was asked to assess each survey question's relevance to each research question. Assessment by these training professionals provided support that the survey questions mapped to their respective research questions.

Data Collection Procedure

The data for this study was collected using the modified survey instrument, "Survey of Present Practices in Training Evaluation: U.S. Financial Services Industry." This self-administered questionnaire was mailed to each member of the sample. One reason for selection of the mail survey method was the lower resource requirements required for a large sample distributed across the United States (Rubin & Babbie, p. 350). Other reasons for using the mail survey method included the potential for minimizing sampling error by mailing out additional surveys at relatively low cost, providing anonymity, and minimizing confidentiality concerns (Rubin & Babbie, 1993; Salant & Dillman, 1994).

A potential weakness of mail surveys is non-response error. In order to overcome this potential weakness, a well-designed questionnaire form and a three-step procedure was used. The three-step procedure entailed: (1) a personalized cover letter and questionnaire mailed in a 9" x 12" white envelope printed with the words "First Class Mail" and bearing a first-class commemorative postage stamp with an a enclosed self-addressed, first-class marked envelope bearing a first-class commemorative postage stamp; (2) follow-up phone calls and e-mails to each potential respondent to collect the survey data via telephone; and (3) a bright yellow follow-up postcard thanking respondents and requesting a response from those who had not yet responded (Salant & Dillman, 1994; Phillips, 1997b). In an attempt to increase the response rate, the results of the survey and a bibliography of articles and books on training evaluation including return on investment, were offered as an incentive to respond.

Data Analysis

Descriptive and inferential statistics were used in the data analyses to help understand the people and organizations in the sample. The survey data was analyzed using frequencies and means for individual survey responses with further analyses using cross-tabulations and correlations depending on the measurement level of the variables in question. For two continuous variables, correlations were used to test the degree of association between the two variables.

Summary of Methodology

The study was conducted using survey research guidelines. The following research questions guided the study: (1) How is formal, employer-sponsored training evaluated by firms in the financial services industry, which are affiliated with DALBAR, Inc.? (2) What impact do various organizational structures or characteristics have on the evaluation of training? (3) What are some of the barriers to implementing training evaluation?

Specific hypotheses were formulated based on the literature. These hypotheses were based on what is known about training evaluation in the U. S. Financial Services Industry. These hypotheses were tested using specific statistical procedures.

H1: The majority of formal, employer-sponsored training will be evaluated at Level 1 (reaction) and Level 2 (learning).

H2: There will be no generally accepted method of evaluating return on investment of training.

H3: Differences in the percentage of evaluation conducted at the four levels will be associated with differences in organizational characteristics.

H4: Differences in barriers are associated with the level of evaluation conducted.

Data was transferred to Statistical Package for the Social Sciences (SPSS) Version 11.1 for analysis. The specific statistical procedures used for each research objective were as follows:

1) How is formal, employer-sponsored training evaluated in the U.S. Financial Services Industry?
    - Extent to which organizations are using evaluation Levels 1, 2, 3, 4, and ROI was measured by using percentages of programs using each level.
    - Extent to which employee/education staff is involved in evaluation (percentages), budget is applied to/dedicated to evaluation, and policy guides evaluation was measured through the use of means, standard deviations, and relative frequencies.
    - Types of Level 1, 2, 3, 4, and ROI evaluation used were measured by using percentage ranges for the number of programs in which each method was used including "Other" and reported as frequencies and number of responses.
    - Extent to which evaluation planning occurs during the process was measured through the use of frequencies and number of responses.

- Frequency for which stage evaluation planning occurs for each level of evaluation using frequencies and number of responses.
- Criteria important to selecting education/training programs for ROI level evaluation were measured using frequencies and number of responses.
- Criteria important to determining most effective method of calculating ROI of training were reported using frequencies and number of responses.
- Methods of ROI evaluation were reported using frequencies and numbers of responses.

2) What impact do various organizational structures or characteristics have on the evaluation of training?
   - Correlation of the reason for delivery of employee development programs with each of Levels 1, 2, 3, 4, and ROI was measured using the Pearson Product moment correlation.
   - Demographics of the sample were reported using frequencies of titles of the respondents, job functions of respondents, education backgrounds of respondents (degrees completed and major), and number of years respondent has been performing in a training function.
   - Relationship of size of organization with percentage use of each of Levels 1, 2, 3, 4, and ROI was reported using one-way analysis of variance for three or more groups.
3) What are some of the barriers to implementing training evaluation?

- Reasons (barriers) for not using each of Level 1, 2, 3, 4, and ROI were measured using frequencies and number of responses.

CHAPTER IV

DATA ANALYSIS

Introduction

The results in the following sections increased understanding of factors that are associated with implementation of training evaluation in financial services organizations.

Analysis

The analyses were conducted using descriptive statistics, correlations, t-tests, and one-way ANOVAs. Descriptive statistics were used to describe the frequency of choices for different items. Correlations were used to measure the linear association between two variables. A positive association indicates that a higher score on one variable is associated with a higher score on the other variable. A negative correlation indicates that a higher score on one variable is related to a lower score on the other variable. Inferential statistics using t-tests and one-way ANOVAs were also used to compare the means and test for mean differences between groups. For all statistical significance tests, an alpha of .05 was used.

Population Size, Response Rate, and Margin of Error

The survey population consisted of 112 DALBAR affiliated firms in the financial services industry. Survey forms were sent to 234 individuals who represented the original list of 112 firms. Certain addressees were later identified as out-of-scope due to input from respondents in the form of notes on returned surveys, phone calls and e-mails. Out-of-scope addressees included individuals whose (1) primary responsibility

was or had changed to a function other than training, or (2) primary training was external. Additional out-of-scope addresses were identified and removed after identification of multiple addressees from companies not initially recognized as being the same company (e.g., initials of a company, re-arranged order of company name, and shortened form of company name). Advance knowledge of multiple responses was limited due to variances in company names in the mailing list (e.g., acronyms and multiple arrangements of words in a company name).

Each survey was mailed with a cover letter requesting return of the survey within one month. One week after the initial mailing, a reminder e-mail was sent to the mailing list of 234 individuals. Surveys were coded to determine whether they were received prior to the initial deadline (Group 1), or if additional contact was necessary to obtain the requested information (Group 2). ANOVA was conducted to investigate whether responses from Group 1 differed significantly from those of Group 2. According to the results, which are listed in Table 4.1, no significant differences were found between the responses received by Group 1 and those received by Group 2.

Table 4.1

Comparison of Results Received by Group 1 and Group 2.

Survey Response Item	F	Sig (α=.05)
Percentage Using Level 1 Evaluation	1.00	.32
Percentage Using Level 2 Evaluation	.04	.85
Percentage Using Level 3 Evaluation	.03	.86
Percentage Using Level 4 Evaluation	.12	.73
Percentage Using Measurements of ROI	1.44	.24

Therefore, for the remainder of this analysis, the results from these to groups have been combined and will be treated as a single group.

In determining how to handle multiple responses from a single company, the following process was followed. If a survey had already been received from a company at the time a potential duplicate was identified, the survey was retained for analysis and other individuals from the same company were considered out of scope. If more than one survey from the same company had already been received, the survey of the higher, most applicable training title was retained. If more than one survey from the same company had already been received and none of the addresses contained job titles, the earlier post-marked survey was retained. Out-of-scope addresses were deducted from the total survey population list. Removal of out-of-scope surveys reduced the target population from 234 addresses to 230 addressees. A total of 52 surveys were returned for an overall response rate of 50% and an expected margin of error of 10% at a 95% confidence level. Data from the 52 usable surveys were entered into Statistical Package for the Social Sciences (SPSS), Graduate Pack 11.1 for Windows.

Respondent Demographics

Respondents were asked to indicate the following information about their organizations and themselves in the last section of the survey form: (1) type of organizational structure, (2) type of financial services organization, (3) size of organization, (4) number of employees working in the United States, (5) number of U.S. employees in education/training last year, (6) number of years organization has been providing training, (7) individual job title, (8) individual job function, (9) number of

years individual has personally been performing a training function in this or any other position (in any company), (10) gender, and (11) academic preparation. An organization's structure (e.g., corporation), type (e.g., mutual fund), size (e.g., 0-500 employees), number of employees working in the United States (e.g., 1,500), number of U.S. employees in education/training last year (e.g., 50), and number of years organization has been providing training (e.g., 10 years) may help understand variation in how training evaluation is conducted within these organizations. Additionally, a respondent's job title (e.g., manager), individual job function (e.g., training and development), number of years individual has personally been performing a training function in this or any other position (e.g., more than 10 years), gender (e.g., female), and academic preparation (e.g., PhD) could also relate to how evaluation is used in an organization.

A blank was provided for responses to "number of employees working in the United States" and "number of U.S. employees in education/training last year." Many respondents answered "all" to the number of employees working in the U.S. and responded with the number of individuals in the training department rather than the number of employees who participated in training. The large number of non-standard responses rendered the data of limited direct use in this study.

Demographic data regarding organizational structure, type, and size (number of employees) are provided in Table 4.2.

Table 4.2

Type of Financial Services Organizational Structure.

Type	Number of Organizations
Corporation	47
Partnership	1
Other	3
Missing	1

The types of financial services offered by the organizations represented in this study included banking, broker/dealer services, discount brokerages, life insurance services, mutual funds services, trust services, etc. Mutual fund and banking services comprised the single largest categories in the study, followed by broker/dealer services, and life insurance services as indicated in Table 4.3.

Table 4.3

Types of Financial Services Offered.

Type	Number of Organizations
Mutual Funds	11
Banking	22
Broker/Dealer	5
Life Insurance	7
Other	7

Respondents were provided with several categories to describe the size of their organization. Category choices for organization size were as follows: 1-249; 250-499; 500-749; 750-999; 1,000-1,249; 1,250-1,499; 1,500-1,749; 1,750-1,999; 2,000-2,249;

2,250-2,499; and over 25,000. Table 4.4 shows that 80% of the responses came from organizations of more than 2,500 employees.

Table 4.4

Organization Size (Including full-time, part-time, and contract employees).

Number of Employees	Number of Organizations (N=52)
1-249	4
250-499	2
500-749	2
750-999	2
1,000-1,249	1
1,250-1,499	1
1,500-1,749	1
1,750-1,999	1
2,000-2,249	1
Over 2,500	38

Respondents were also asked demographic questions regarding respondent title, function, the number of years performing a training function, gender, and academic preparation. This information was collected to explore possible trends regarding where evaluation is placed within the organization and who (by experience and education) could be resources to evaluation activity. Table 4.5 also shows that most respondents had titles of manager or director followed by vice president.

Respondents were also asked to indicate their job function within the organization as indicated in their job title. Table 4.5 shows that respondents checked one or more applicable functions, the "training and development" response yielding the

highest frequency. ‘Human resource development’ as a function description ranked second and ‘training’ as a function description ranked third. Other job functions listed in the “other” category included organizational development, training and performance technology, and quality improvement.

Table 4.5 also shows that more than half of the respondents had at least 10 years of experience in training. Classification of respondents by gender indicated that it was fairly evenly split, with approximately 51% of the respondents being male and 49% of the respondents being female.

Table 4.5

Respondent Demographics.

TITLE (N=52)	COUNT
Vice President	12
Manager	17
Director	17
Supervisor	1
Other	2
Missing	3
FUNCTION (N=52)	**COUNT**
Training and Development	22
Training	9
Human Resource Development	6
Training and Evaluation	2
Other	9
Missing	4
RESPONDENT'S NUMBER OF YEARS IN TRAINING	**COUNT**
1-5	10
5-10	7

Table 4.5 *Continued*

10 or more	34
RESPONDENT'S NUMBER OF YEARS IN TRAINING	COUNT
Missing	1
GENDER OF RESPONDENT (N=52)	COUNT
Male	24
Female	28

Academic preparation is often an important addition to the resource base of an individual in the training field. Perspectives brought to the financial services industry from an individual's academic preparation may also provide a specific focus. In this study, individuals responded to survey questions regarding their academic preparation from an associate degree through a doctorate. A number of individuals listed only their most recent degree while others listed all earned degrees. Numbers of completed degrees provide information regarding the extent of formal education as well as the levels attained. Fifty-three percent of the respondents reported earning a master's degree and nine percent reported completing their doctorate degree. Respondents often omitted prior degrees (e.g., omitting a bachelor's degree when a master's degree had been earned). Closer inspection by the researcher with this assumption yielded an estimate that 91% of the respondents had completed their bachelor's degree. Business and education related studies were the predominant concentrations for master's degrees. Three doctorates were earned with the primary emphasis being in education related studies and one doctorate in business and one in industrial/organizational psychology were reported.

Extent of Use: Training Evaluation Levels 1, 2, 3, 4, and ROI

Research Question One asked how formal, employer-sponsored training is evaluated in the U. S. financial services industry. Hypothesis One stated that formal, employer-sponsored training would be predominantly evaluated at Level 1 (reaction) and Level 2 (learning). Hypothesis Two stated that there would be no generally accepted method of evaluating return on investment of training. Descriptive statistics showing the frequencies for each level confirmed these hypotheses.

The extents to which organizations reported use of evaluation Levels 1, 2, 3, 4, and return on investment were analyzed using frequencies and means. The intent was to determine the extent to which the financial services industry is using evaluation Levels 1, 2, 3, 4, and ROI to evaluate training. Respondents estimated their percentage use of each level of evaluation for training programs by providing a response on the blank line provided in the survey. The mean percentages calculated for Levels of Evaluation were sequenced from highest use to lowest use: Level 1, Level 2, Level 3, Level 4, and ROI. Mean percentages for use of each evaluation level was as follows: Level 1 at 87.29%; Level 2 at 54.43%; Level 3 at 26.45%; Level 4 at 14.00%; and ROI at 10.04%. Standard deviations ranged as follows: 21.13 (Level 1), 33.02 (Level 2), 29.56 (Level 3), 24.72 (Level 4), and 25.21 (ROI Level) indicating considerable variability in the range of responses. The results of this study are compared in Table 4.6 with the results of two recent studies conducted using a similar instrument in the areas of technical training evaluation (Twitchell, 1997) and health care evaluation (Hill, 1999).

Table 4.6

Levels of Evaluation for Current Study and Previous Studies.

Level of Evaluation	Present Study (N=52)		Health Care Study (N=244)		Technical Training Study (N=146)	
	Mean	SD	Mean	SD	Mean	SD
1	87.29	21.13	80.85	26.82	72.74	35.40
2	54.43	33.02	52.59	32.57	47.05	36.24
3	26.45	29.56	30.77[2]	30.77[2]	30.54	33.73
4	14.00	24.72	16.97	25.53	20.82[1]	30.90
ROI	10.04	25.21	3.73	12.18	-	-

[1]The Twitchell study included ROI evaluation within the Level 4 (business impact) data.

[2]These numbers appear identical due to rounding. The numbers differ at the fifth decimal point: mean=30.7719298 and standard deviation=30.7718720 as determined by statistical software SAS.

Results of this analysis yielded information similar to other research findings based on the training industry as a whole (Bassi & Van Buren, 1998), in the health care industry (Hill, 1999), and in technical training (Twitchell, 1997): the percentage of programs using evaluation decreased from Level 1 through Level 4 (including return on investment).

In comparison, a research study by Twitchell (1997) reported that the percentage of programs evaluated in technical training was 72.74% at Level 1; 47.05% at Level 2; 33.73% at Level 3; and 20.82% at Level 4 and return on investment. Additionally, a study by Hill (1999) reported that the percentage of programs evaluated in healthcare was 16.97% for Level 4). The current study found the following percentages: 84.94% at Level 1; 55.00% at Level 2; 25.96% at Level 3; and a combined percentage of 21.20% for Level 4 (and return on investment).

For further comparison purposes, the average organization size in the Hill (1999) research was less than 3,000 employees, while in the Twitchell (1997) research the average organization size was 4,500 employees. In this study, 73% of the organizations had more than 2,500 employees. The Twitchell research was placed in the Technical training professional practice group within the ASTD membership. A survey instrument adapted from the Twitchell technical training research was used for this study in the financial services industry. A similar research design was established including a multiple step mailing process to ensure a higher response rate. Additional information was obtained regarding specific Level 1 evaluation methods in the financial services study as well as additional questions regarding demographics of the organization and the individual respondent.

When recent research is compared, similarities occur in the percentage use of programs that are evaluated at Levels 1 and 2. Despite differences in industry, size of organization, or focus of the research, Level 1 and 2 evaluation is dominant.

The extent of evaluation of training present in an organization may be viewed as the commitment of employee/education staff by what percentage of the staff is involved in evaluation, what amount of the employee education/training budget is applied to evaluation, and what percentage of the employee education/staff has formal preparation in evaluation. Percentage ranges were used to characterize these variables: '1' represents 0% percentage, '2' represents 1-19%, '3' represents 20-39%, '4' represents 40-59%, '5' represents 60-79%, and '6' represents 80-100%. Responses to these questions were self-reports based on the individual's perspective and knowledge. Data from this research

study indicate that almost half of the financial services organization education/training staff is involved in evaluation activities yet less than 20% of the employee education/training budget is applied to evaluation activities. Based on the standard deviation for percentages reported, the amount of budget applied to evaluation activities varies much less among organizations than either number of staff involved in evaluation or the percentage of staff members with formal preparation in evaluation. A summary of these results is provided in Table 4.7.

Table 4.7

Evidence of Training Evaluation Commitment: Staff Involvement, Budget, and Formal Staff Preparation in Evaluation.

	N	Minimum	Maximum	Mean	SD
% Staff Involved in Evaluation	52	2	6	4.27	1.69
% Education/Training Budget Applied to Evaluation	50	1	5	2.22	.82
% Staff w/ Formal Prep in Evaluation	52	1	6	3	1.44

Patterns, Trends, Methods, and/or Models of Training Evaluation

Research Question One asked what patterns, trends, methods, and/or models of training evaluation exist. Hypothesis Two stated that there would be no generally accepted method of evaluating return on investment of training. Finding: Descriptive statistics showing frequencies for percentage use of return-on-investment level evaluation methods confirmed the hypothesis. Respondents were asked to estimate the

percentage of programs using specific evaluation methods and were provided with the following ranges from which to select; (a) 0%, the method is never used, (b) 1-19%, the method is used even if only in a few of the organization's programs, (c) 40-59%, the method is used in approximately half the organization's programs, (e) 60-79%, the method is used in more than half the organization's programs, and (f) 80-100%, the method is used in most of the organization's programs. Percentage ranges provided choices about 'some,' 'half, and 'most' without requiring the respondent to calculate actual use (Twitchell, 1997). A blank line was provided for 'other' methods of evaluation in addition to responses provided on the survey instrument.

There were many missing values in the five areas of the survey regarding percentage use of various evaluation methods at each level. The remainder of the survey contained fewer missing values. Missing values also occurred in the responses to the same items in the original survey (Twitchell, 1997) and in the adapted survey's use for the healthcare study (Hill, 1999). Missing values were treated as a response that 'the method was not used.'

To permit a possible comparison of the original survey results (Evaluation Practices in U. S. Business and Industry: Technical Training) with the adapted survey results, (Evaluation of Formal Employer-Sponsored Training in the U. S. Financial services Industry), the "zero percentage use" selection was retained as a survey item response. If the percentage use is not marked, the intent is "zero" percentage use. Therefore, the missing values pertaining to percentage use of various evaluation methods

were recorded as zero since this survey revealed no variance in response to intent of 'missing value.'

Reaction questionnaires (Level 1) were the most frequently used method in Level 1 evaluations as shown in Table 4.8.

Table 4.8

Use of Level 1 Evaluation Methods.

		1	2	3	4	5	6
Method	N	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Reaction Questionnaires	52	1	1	2	0	7	41
Action Plans	52	10	21	8	6	4	3
Knowledge Assessments	52	49	1	1	0	1	0
Pre-Test/Post-Test	52	47	2	0	0	0	3
Focus Groups	52	51	0	1	0	0	0

Facilitator/instructor assessment, self-assessment, and skill demonstrations represented the top three methods of Level 2 evaluation used with 80-100% of the programs. However, as indicated in Table 4.9, only a small number of total respondents indicated the high percentage of programs evaluated.

Table 4.9

Use of Level 2 Evaluation Methods.

		1	2	3	4	5	6
Method	N	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Written pre-/post-test	52	18	18	7	5	1	3
Written post-test only	52	20	8	7	8	6	3
Simulations	52	16	14	6	9	2	5
Work samples	52	17	14	5	5	9	2
Skill demonstrations	52	13	11	11	5	3	9
On-the-job demonstrations	52	20	11	12	4	3	2
Self assessments	52	14	24	8	5	0	1
Team assessments	52	37	9	3	2	1	0
Facilitator/ instructor assessment	52	21	10	8	4	6	3

The top four Level 3 methods of training evaluation used in 80-100% of the programs were assessment by trainee's supervisor, observation, performance appraisal, and self-assessment. These top four methods could possibly be parts of a single evaluation approach in that performance appraisals are often conducted by a trainee's supervisor and based on observations. Again, though the use of these methods is evident

in 80-100% of the organizations' programs, the highest number of respondents was only 38 for assessment by trainee's supervisor. Many of the methods reflected a high percentage of 'non-use' (zero percentage use) of Level 3 methods such as focus groups, assessment by trainee's subordinate, performance contract with supervisor, peer assessment, and other existing records. Table 4.10 summarizes the results indicating percentages of programs using each Level 3 evaluation method.

Table 4.10

Use of Level 3 Evaluation Methods.

		1	2	3	4	5	6
Method	N	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Anecdotal information	52	29	10	6	5	2	0
Observation	52	19	11	12	6	3	1
Performance appraisal	52	26	5	4	7	4	6
Other existing records	52	29	11	3	0	6	3
Specific evaluation records	52	34	11	3	0	1	3
Assessment by trainee's subordinate	52	37	9	3	2	0	1
Self assessment	52	23	17	5	6	0	1
Peer assessment	52	37	11	1	2	1	0
Assessment by trainee's supervisor	52	18	18	7	4	3	2
Focus groups	52	36	12	1	2	1	0

Table 4.10 *Continued*

		1	2	3	4	5	6
Method	N	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Follow-up assignments	52	33	13	3	2	1	0
Action plans	52	27	16	3	2	1	3
Performance contracts w/supervisor	52	40	6	0	4	2	0

In the financial services industry it may not be surprising to see the highest percentage of programs used 'estimation of productivity before and after measures related to the training goal' and 'cost savings' as the two of the top three Level 4 evaluation methods (Table 4.11). Much higher numbers of respondents reflected "non-use" of any Level 4 methods as indicated in Table 4.11.

Table 4.11

Use of Level 4 Evaluation Methods.

		1	2	3	4	5	6
Method	N	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Anecdotal information	52	39	9	2	3	1	1
Estimates of improved productivity	52	30	8	5	5	3	1
Cost savings	52	32	12	2	3	2	1
Compliance with regulations	52	34	7	4	2	2	3
Isolate for effects of program	52	42	3	4	3	0	0

To gain clarity as to the methods of determining what benefit is returned on the training investment, various methods of return-on-investment (ROI) evaluation were listed in the survey. These methods included (1) traditional ROI calculation, (2) benefit-cost analysis, (3) payback period, (4) net present value (NPV), (5) internal rate of return (IRR), (6) utility analysis, (7) balanced scoreboard, and (8) consequences of not training. Respondents were asked to indicate the percentage of use of each method. No single method emerged as the predominant method of evaluation at the ROI level as noted in Table 4.12. In fact, less than 3% of the respondents reported using any return on investment evaluation method (including consequences of not training) in 80-100% of their training programs.

There is a lack of integration of financial analysis with training evaluation as evidenced by the low number of responses to survey items regarding Level 4 methods of evaluation including ROI as presented in Table 4.12.

The researcher's personal experience in training and evaluation has prompted an awareness of limited experience among many education/training staff members regarding both financial analysis and communication using business financial language and terminology. It is possible that the several respondents who entered a percentage of programs evaluated at the return-on-investment level did so with no understanding of the concept (either ROI specifically as a financial analysis tool or the ROI concept as a benefit received on an investment.)

Table 4.12

Use of Return-on-Investment (ROI) Level Evaluation Methods.

	1	2	3	4	5	6
Method	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Traditional ROI calculation	40	4	2	1	3	2
Benefit-Cost Analysis	36	6	1	6	0	3
Payback Period	42	6	1	2	1	0
Net Present Value (NPV)	47	3	0	2	0	0
Internal Rate of Return (IRR)	47	2	0	2	1	0
Utility Analysis	49	3	0	0	0	0
Balanced Scoreboard	42	1	5	0	2	2
Consequences of Not Training	42	3	2	2	2	1

Evaluation planning can occur at various times throughout a training program. Table 4.13 shows that there is no clear timeframe in which evaluation is planned for the programs referred to in this study. If evaluation planning does occur, it is most likely to be during or after program development.

Table 4.13

Timing of Evaluation Planning and the Organization's Evaluation Planning Process.

	1	2	3	4	5	6	
Planning Schedule	0%	1-19%	20-39%	40-59%	60-79%	80-100%	Mean
Prior to program development	25	11	4	4	3	6	2.67
First step in program development	35	11	3	2	1	0	1.79
During program development	17	10	10	5	3	7	3.14
After program completion	19	10	4	10	3	6	3.20
When program results are documented	34	9	1	4	2	2	2.24
Evaluations not implemented	40	5	3	3	1	0	1.77

The top two reasons that employees are sent to a training program are when "all employees are involved in an activity or specific groups attend the program" and when "there is an expectation that employees/training participants will perform at a set level." Employees are least often sent to training as a reward. Varying reasons for employee participation in training programs are represented in Table 4.14.

Table 4.14

Percentages of Why Employees Are Sent to Training Programs.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
	Count	Count	Count	Count	Count	Count
Employees sent to program as reward	26	23	4	0	1	0
All employees involved in an activity	2	10	14	7	10	9
Participants will acquire new attitudes	9	20	14	3	4	2
Participants will be able to perform at set level	5	9	8	11	12	7
Change in organizational outcomes will result	27	13	3	4	1	4

The Pearson product moment correlation coefficient (r) was used to determine the strength of the relationships between the percentage of programs evaluated at each evaluation level and reasons for training are illustrated in Table 4.15. Several relationships were significant. Percentage of evaluations at Level 3 was correlated with "Change in organization outcomes will result" ($r = .439$, $p < .05$). Percentage of evaluations at Level 4 was correlated with "Change in organization outcomes will result" ($r = .481$, $p < .05$). Percentage of evaluations using ROI measurements was correlated with "Change in organization outcomes will result" ($r = .436$, $p < .05$).

Overall, the highest correlations were between Level 4 and change in organizational outcomes.

Table 4.15

Percentage Use of Evaluation Level with Reasons for Training.

Level of Evaluation	Employees sent to program as reward	All employees involved in an activity	Participants will acquire new attitudes	Participants will be able to perform at set level	Training program results must be documented	Change in organizational outcomes will result
% reported at Level 1	-.195	-.10	.08	.01	-.12	-.01
% reported at Level 2	.10	-.12	.09	.05	.19	.26
% reported at Level 3	.16	-.06	.13	.28	.18	.44*
% reported at Level 4	-.08	-.21	.01	.22	.08	.48*
% reported at ROI Investment	.26	-.01	.20	.11	.07	.44*

*Correlation is significant at the 0.05 level (2-tailed).

Table 4.16 shows the correlations between Evaluation Level with ”extent to which evaluation planning occurs during the process.” Percentage of evaluations at Level 1 was negatively correlated with “evaluations not implemented” ” ($\underline{r}$ = -.48, $\underline{p}$ < .01). Percentage of evaluations at Level 2 was positively correlated with “Prior to program development” ($\underline{r}$ = .33, $\underline{p}$ < .05). Percentage of evaluations at Level 3 was positively correlated with “Prior to program development” ($\underline{r}$ = .44, $\underline{p}$ < .01), and “first step in program development” ($\underline{r}$ = .42, $\underline{p}$ < .05). Percentage of evaluations at Level 4 was negatively correlated with “After program development” ($\underline{r}$ = .32, $\underline{p}$ < .05). Percentage of evaluations at ROI was positively correlated with “Prior to program

development" (r = .45, p < .01), and "first step in program development" (r = .57, p < .01). Overall, higher percentages of program evaluation at most levels of evaluation were related to planning prior to program development or as the first step in program development.

Table 4.16

Percentage Use of Level of Evaluation with Evaluation Implementation Timetable.

Level of Evaluation	Prior to program develop-ment	First step in program develop-ment	During program develop-ment	After program completion	When training program results documented	Evaluations not implemented
% reported at Level 1	.09	.12	.10	.20	-.17	-.48
% reported at Level 2	.33*	.28	.06	.07	.21	-.16
% reported at Level 3	.44**	.42*	.23	-.06	.08	.07
% reported at Level 4	.29	.24	.16	-.32*	-.14	-.11
% reported at ROI	.45*	.57*	.01	.08	.32	.05

*Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The most important selection criteria for selecting a training program for ROI level of evaluation appeared to be support of strategic objectives followed closely by operational goals/issues. The least important criterion was a comprehensive needs assessment. Table 4.17 shows the ranking of other selection criteria. Survey respondents ranked criteria for selecting a training program for ROI evaluation using a scale of 1-10

(1 being most important). Criteria choices included strategic objectives, operational goals/issues, interest of top executives, time investment, long life cycle, involves large target audience, high visibility, comprehensive needs assessment, and expensive. Ranking of criteria for selecting education/training programs for ROI level evaluation is presented in order of importance from most important to least important in Table 4.17.

Table 4.17

Ranking of Criteria for Training Program Selection for ROI Evaluation.

Criteria	N	Mean
Strategic objectives	43	2.30
Operational goals/issues	32	2.56
Interest of top executives	43	3.63
High visibility	43	4.70
Large target audience	44	5.11
Expensive	41	5.54
Significant amount of time	44	5.70
Long life cycle	42	6.26
Comprehensive needs assessment	42	6.48

Respondent ranking of criteria to determine the most effective method of calculating the ROI of training yielded the criterion, “credible.” Least important to an effective ROI method were that the method include program costs and account for other factors. These ranking results are particularly interesting because program costs are an integral input into the ROI level training evaluation plan as is accounting for other factors. Both of these criteria are significant contributors to a ‘credible’ ROI evaluation of training. Ranking of criteria to determine most effective method of calculating ROI of

training is presented in order of importance using a scale of 1-10 (1 being most important) and shown in Table 4.18.

Table 4.18

Respondent Criteria Ranking for an Effective ROI Method for Training Evaluation.

Criteria	N	Mean
Credible	44	2.75
Theoretically sound	45	3.78
Simple	44	4.32
Economical	44	4.61
Appropriate for a variety of programs	45	5.33
Successful track record	45	5.44
Applicable with all types of data	44	5.52
Include program costs	45	6.11
Account for other factors	43	6.86

Variances in Patterns, Trends, Methods, and/or Models of Training Evaluation Based on Organizational Structure and Characteristics

Research Question Two also asked what impact various organizational structures or characteristics had on the evaluation of training. Hypothesis Three stated that differences in the percentage of evaluation conducted at the four levels would be associated with differences in financial services organizational characteristics. Finding: Inferential statistics testing mean differences using one-way ANOVAs and independent samples t-tests confirmed the hypothesis.

Mean differences were tested using one-way ANOVAs between organization type and percentage use of each of Levels 1, 2, 3, 4 and ROI; organization size and

percentage use of each of levels 1, 2, 3, 4, and ROI; reporting of evaluation information to executive management and percentage use of each of Levels 1, 2, 3, 4, and ROI.

As the largest category among the survey responses (22 of 52), banking institutions indicated percentage of use of various levels of evaluation as follows: Level 1 at 78.9%, Level 2 at 57.9%, Level 3 at 32.7%, Level 4 at 11.1%, and ROI Level at .29%. The one-way ANOVA analyses found that no statistical difference exists between organization types and their use of Level 1, Level 2, Level 4, and ROI evaluations. However, a statistical difference was found between organization types and their use of Level 3 evaluations [$F=3.22$, $p=.020$, $\alpha=.05$].

Size of an organization related to percentage levels of training evaluation use is characterized by a generally higher use of Level l evaluation by larger organizations [$F=3.70$, $p=.00$, $\alpha=.01$]. Percentage use of levels of evaluation among organizations of differing sizes are presented in Table 4.19.

Table 4.19

Differences Between Organization Size Regarding Percentage of Programs Evaluated at Different Levels

Percentage Reported at Level	Number of Employees	N	Mean	Std. Dev.	Std. Error
LEVEL 1	1-249	4	68.75	28.98	14.49
	250-499	2	60.00	56.57	40.00
	500-749	0	0	0	0
	750-999	2	77.50	3.54	2.50
	1000-1249	2	99.50	.71	.50
	1250-1499	1	98	-	-
	1500-1749	1	10	-	-

Table 4.19 *Continued*

Percentage Reported at Level	Number of Employees	N	Mean	Std. Dev.	Std. Error
	1750-1999	1	95	-	-
	2000-2249	0	0	0	0
	2250-2499	1	80	-	-
	Over 2500	37	92.43	12.97	2.13
	Total	51	87.29	21.13	2.96
LEVEL 2	1-249	4	76.25	31.46	15.73
	250-499	2	50	70.71	50
	500-749	0	0	0	0
	750-999	2	27.5	3.54	2.5
	1000-1249	2	54.5	34.65	24.5
	1250-1499	1	98	-	-
	1500-1749	1	10	-	-
	1750-1999	1	25	-	-
	2000-2249	0	0	0	0
	2250-2499	1	50	-	-
	Over 2500	35	54.71	32.08	5.42
	Total	49	54.43	33.02	4.72
LEVEL 3	1-249	4	27.5	22.17	11.09
	250-499	2	12.5	17.68	12.5
	500-749	0	0	0	0
	750-999	2	15	7.07	5
	1000-1249	2	30	28.28	20
	1250-1499	1	95	-	-
	1500-1749	1	10	-	-
	1750-1999	1	15	-	-
	2000-2249	0	0	0	0
	2250-2499	1	20	-	-
	Over 2500	38	26.59	31.24	5.07
	Total	52	26.45	29.56	4.10
LEVEL 4	1-249	4	0	0	0

Table 4.19 *Continued*

Percentage Reported at Level	Number of Employees	N	Mean	Std. Dev.	Std. Error
	250-499	2	12.5	17.68	12.5
	500-749	0	0	0	0
	750-999	2	10	14.14	10
	1000-1249	2	25	35.35	25
	1250-1499	0	0	0	0
	1500-1749	1	10	-	-
	1750-1999	1	0	-	-
	2000-2249	0	0	0	0
	2250-2499	1	20	-	-
	Over 2500	38	15.5	27.21	4.41
	Total	51	14	24.72	3.46
ROI	1-249	3	6.67	11.55	6.67
	250-499	2	-	-	-
	500-749	0	0	0	0
	750-999	2	2.5	3.54	2.5
	1000-1249	2	20	14.14	10
	1250-1499	1	70	-	-
	1500-1749	1	0	-	-
	1750-1999	1	0	-	-
	2000-2249	0	0	0	0
	2250-2499	1	10	-	-
	Over 2500	36	9.64	27.09	4.51
	Total	49	10.04	25.21	3.60

Respondents were asked to indicate whether training program evaluation is routinely reported to executive management. Mean percentage use of various levels of evaluation and whether evaluation information is routinely reported to executive management is represented in Table 4.20.

Table 4.20

Differences in Percentage of Programs Evaluated at Various Levels Depending on Routine Reporting of Training Evaluation Information to Executive Management.

Percentage Reported at	Education/Training Info. Routinely Reported to Mgmt Executive Mgmt	N	Mean	Std. Dev.	Std. Error Mean
Level 1	No	15	80.87	24.05	6.21
	Yes	31	90.39	20.75	3.73
Level 2	No	15	43.3	32.66	8.43
	Yes	29	59.38	33.71	6.26
Level 3	No	15	17.17	25.79	6.66
	Yes	32	30.59	32.72	5.78
Level 4	No	15	6.53	15.79	4.08
	Yes	31	18.65	28.93	5.20
ROI	No	15	1.67	5.23	1.35
	Yes	29	15.69	31.50	5.85

Further analysis using an independent samples t-test was conducted using evaluation results reported to executive management and percentage of programs evaluated at various levels. Results indicate that there is no statistical difference between whether or not evaluation results are reported to management and the different levels of evaluation utilized in the organization, as represented in Table 4.21.

Table 4.21

Results from Independent Samples T-Test Comparing Whether Results Are Reported to Management and Percentage of Programs Evaluated at Various Levels.

Levene's Test for Equality of Variances	t-test for Equality of Means	F	Sig.	T	Df	Sig (2-tailed)	Mean Difference
% reported at Level 1	Equal variances assumed	.79	.38	-1.39	44	.17	-9.52
% reported at Level 2	Equal variances assumed	.35	.56	-1.51	42	.14	-16.05

Table 4.21 *Continued*

Levene's Test for Equality of Variances	t-test for Equality of Means	F	Sig.	T	Df	Sig (2-tailed)	Mean Difference
% reported at Level 3	Equal variances assumed	1.45	.24	-1.40	45	.17	-13.43
% reported at Level 4	Equal variances assumed	6.43	.02	-1.51	44	.14	-12.11
% reported at ROI	Equal variances assumed	11.00	.002	-1.70	42	.10	-14.02

Barriers to Evaluation of Training

Question Three asked what barriers to training evaluation exist. Hypothesis Four stated that differences in barriers are associated with the level of evaluation conducted. Finding: Descriptive statistics using Chi-square calculations and Fisher's Exact test for barriers associated with each level of evaluation confirmed the hypothesis. Respondents were asked to indicate reasons that evaluation was not done at each of Levels 1 (reaction), 2 (learning), 3 (transfer to job), 4 (organizational outcome), and ROI (return on investment). Respondents were asked to indicate all barriers that applied to each level of evaluation. The top four reasons most frequently cited for not evaluating training across all levels of evaluation were (1) not required by the organization, (2) the cost in person hours and/or capital, (3) lack of training and/or experience in using evaluation, and (4) little perceived value to the organization. The least cited barrier across all levels of evaluation was "policy prohibits the evaluation of employees by the training department."

Inspection of reasons for non-use of evaluation at each level, however, provides additional information. The most frequently cited barriers for Level 1 evaluation were "little perceived value by the organization" and "not required by the organization." The most frequently cited barriers for Level 2 evaluation were "the cost in person-hours and capital" and "not required by the organization." In Level 3 evaluation, the most frequently cited barrier to use of evaluation was "the cost in person-hours and capital." In Level 4 (and ROI), the top two reasons for non-use of evaluation were "the cost in person-hours and capital" followed closely by "not required by the organization." Additional results are listed in Table 4.22.

Table 4.22

Reasons for Non-Use of Evaluation at Various Levels.

	Level 1	Level 2	Level 3	Level 4/ROI
	Count	Count	Count	Count
Little perceived value to the organization	12	11	10	13
The cost in person-hours and capital	4	21	26	26
Evaluation takes too much time from the course	5	8	7	6
Lack of training or experience in using this form of evaluation	6	8	15	19
Not required by the organization	13	23	17	25
Policy prohibits the evaluation of employees by the training department	1	1	0	0
Training is done only to meet legal requirements	7	6	3	4

Other Findings

Respondents were provided blank lines to record "other" choices in each of the evaluation level sections (A, B, C, and D). These handwritten items were transcribed and compiled as lists of words, phrases, and sentences (edited occasionally for brevity using ellipses but not edited for spelling and grammar except when a complete spelling of an abbreviated term would clarify its meaning). A few responses were omitted to preserve the respondent's confidentiality. The actual responses are included as Appendix E.

Summary

Responses from 52 DALBAR member firms were analyzed using descriptive and inferential statistics. Findings from the data analysis responded to the four research questions and confirmed the hypotheses investigated. The survey results confirmed that Levels 1 and 2 were most often used in training program evaluation as expected in Hypothesis One. In addition, the percentage use of each level decreased from Levels 1 through 4 (and ROI) which is consistent with past research.

Research results supported Hypothesis Two indicating that no generally accepted method of evaluating return on investment of training currently exists. Also identified in responses were several significant correlations between the percentage of programs evaluated at Levels 1, 2, 3, 4 (and ROI) and reasons for delivering training. In addition, significant relationships exist between percentage of evaluation at various levels and the timing of evaluation planning. Respondents indicated that strategic objectives and operational goals/issues are the most important criteria for selection of a training

program for ROI evaluation. Most important to the ROI method was that it be "credible."

The findings also showed the influence of organizational characteristics on levels of evaluation that supported Hypothesis Three. Percentage use of Level 1 evaluation was generally found to be higher in larger organizations. The percentage use of levels 2 through ROI is statistically significantly greater than in organizations where training evaluation results are not routinely reported to executive management.

Differences in barriers were associated with the level of evaluation conducted which supported Research Question 4. Barriers to Levels 1 and 2 were typically that the evaluation has little perceived value to the organization and that it is not required by the organization. Barriers for Levels 3 and 4 (plus ROI) were cost, lack of training, and not required by the organization (order of barriers varied between Levels 3 and 4). A significant correlation exists between the existence of an evaluation policy and the barrier "of little value to the organization."

Each of the four hypotheses was confirmed. A content analysis of written responses to questions inquiring about "other" methods of evaluation, "other" barriers to evaluation, and "other" types of organizations, etc., provided additional detail in response to the research questions.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The primary purpose of this study is to examine how employer-sponsored training is evaluated in the financial services industry, as represented by firms affiliated with DALBAR, Inc. The training literature is replete with books and articles discussing the value of evaluation, the need to evaluate, and the need to prove the value of training. However, the literature on the issue of training evaluation does not provide a clear picture of how the available models for evaluation are being used in training within the financial services industry. While researchers in the Human Resource Development (HRD) field have identified a trend toward increased accountability (Phillips, 1997c), evaluation of HRD training programs faces significant barriers in implementing training evaluation including difficulty, cost, and time (Phillips, 1997b, 1997c; Carnevale & Schultz, 1990). The results from this study provide data that help answer questions regarding current training evaluation practice and barriers to evaluation that are encountered in the financial services industry.

Research Questions

The three research questions guiding the study are as follows: (1). How is formal, employer-sponsored training evaluated by firms in the financial services industry, which are affiliated with DALBAR, Inc.? (2) What impact do various organizational structures

or characteristics have on the evaluation of training? (3) What are some of the barriers to implementing training evaluation?

The first two hypotheses analyzed the present state of training evaluation by (1) examining whether the majority of formal, employer-sponsored training will be evaluated at Level 1 (reaction) and Level 2 (learning) and (2) examining whether there is a generally accepted method of evaluating return on investment in relation to employer-sponsored training. The third hypothesis tested the differences in the percentage of evaluation conducted at the four levels in relation to the differences in organizational characteristics. The fourth hypothesis examined the differences in barriers that are associated with the level of evaluation conducted.

Research Methodology

Survey research methodology was used to collect data from representatives of financial services industry by firms affiliated with DALBAR, Inc. Affiliation with DALBAR was considered to be an indicator of interest in raising standards of excellence within the financial services industry. Therefore, DALBAR affiliation represented organizations whose training personnel had current knowledge of industry practices and were considered capable of portraying an accurate picture of the current state of evaluation within their respective firms. A total of 52 responses from a sampling frame of 234 individuals representing 112 different financial services firms was received and analyzed using descriptive and inferential statistics.

Demographics of the sample were reported including titles of the respondents, job functions of the respondents, educational backgrounds of the respondents, and the

number of years the respondent has been performing in a training function. Percentages of programs using evaluation Levels 1, 2, 3, 4, and ROI were also calculated in addition to extent to which employee/education staff is involved in evaluation, budget is applied to/dedicated to evaluation, and policy guides evaluation. Types of Level 1, 2, 3, 4, and ROI evaluation methods used were also measured. The extent to which evaluation planning occurs during the process and reasons for delivery of training was also analyzed.

Criteria important to selecting education/training programs for ROI level evaluation and criteria important to determining the most effective method of calculating ROI of training and methods of ROI evaluation were examined. The relationship of evaluation information reported to executive management and percentage use at Levels 1, 2, 3, 4, and ROI was analyzed. Additionally, relationships between the existence of an evaluation policy and each of the following were analyzed: organization type, organization size, the reporting of evaluation information to executive management, and barriers at each of Levels 1, 2, 3, 4, and ROI. And finally, reasons (barriers) for not using each of Levels 1, 2, 3, 4, and ROI were also measured.

Findings

Consistent with prior research, this study confirmed Hypothesis One that Levels 1 and 2 were most often used in training program evaluation. In addition, results of this study revealed that the percentage use of each level decreased from Levels 1 through 4 (and ROI) which is also consistent with past research (Bassi & Van Buren, 1999, 1998; Training, 1998; Bartel, 1997; Hilbert, Preskill & Russ-Eft, 1997; Hill, 1999; Twitchell,

1997; Phillips, 1997b; Dixon, 1990; Gutek, 1988). However, results from this study also showed a lower percentage use of evaluation at Levels 3 and 4 than recent research in the healthcare (Hill, 1999) and technical training industries (Twitchell, 1997). Conversely, the reported use of ROI calculations was higher in this study, when compared to a previous study focused on the healthcare industry (Hill, 1999).

Research results supported Hypothesis Two indicating that no generally accepted method of evaluating return on investment of training currently exists. Prior research emphasized the benefits of determining training's financial impact (Lombardo, 1989; Carnevale and Schulz, 1990) and financial analysis methods including calculating returns on investment (Mosier, 1992; Phillips, 1994) but only two collections of case studies documenting the financial impact of training exist (Phillips, 1994, 1997a). Bartel (1997) located 20 training impact case studies using the ROI evaluation level. She concluded that many of the studies used faulty methodologies which "resulted in estimates that were too high to be believed" (p. 173). The present study in financial services training evaluation queried the respondents at a detailed level about specific methods that can be used to calculate ROI. The overall response was very low in frequency of response to any method at any level. Respondents further indicated that the most important criterion for an ROI method was credibility.

Also identified were significant correlations between percentage programs evaluated at Levels 1, 2, 3, 4 (and ROI) and reasons for delivering training. Comparative research in the technical training (Twitchell, 1997) and healthcare (Hill, 1999) found low positive correlations between programs delivered to change performance or

organizational outcomes and the Level of evaluation used. This study found similar positive correlations at Levels 2-4, and ROI. Overall, the highest correlations were between Level 4 evaluation and a change in organizational outcomes.

Significant relationships exist between the percentage of evaluation at various levels and the timing of evaluation planning in the present study of financial services evaluation training. The relationship was most significant ($p < .001$ level) for evaluation planning prior to program development and Level 3. Additional positive correlations between of program evaluation at most levels of evaluation were related to planning prior to program development or as the first step in program development. A significant relationship ($p<.05$ level) between the percentage of reported use of ROI measurements and evaluation planning as the first step in program development was also found. This result indicates the possibility that when ROI measurements are to be calculated, that the information for the evaluation itself must be integrated into the development of the program from the beginning. Overall, the present study found that the greater the percentage of evaluations at Levels 1, the likelihood of implementing evaluations was lower, as seen by a negative correlation at the $p < .05$ level.

Respondents reported that strategic objectives and operational goals/issues were the most important criteria for selection of a training program for ROI evaluation. These findings support prior studies. For instance, Tesoro (1999) identified business goals and performance metrics for a training course he evaluated at the ROI level. A criterion was then developed for selecting programs for ROI evaluations which Tesoro refers to as the CLIVE criteria: Cost, Leverage, Impact, Visibility, and Enrollment (p. 105). Chase,

(1997) also discussed the development of criteria for ROI level evaluation. Included in the criteria was programs which are linked to crucial strategic objectives, or any other programs for which measurement is especially wanted. Prior research supports similar criteria (Phillips, 1997a, 1997b, 1997c)

The findings also examined the influence of organizational characteristics on levels of evaluation. The results indicated that no statistical difference exists between organization types and their use of Level 1, Level 2, Level 4, and ROI evaluations. However, a statistical difference was found between organization types and their use of Level 3 evaluations. The use of Level 1 evaluations tended to reflect the size of the organization, as the use of Level 1 evaluations was generally higher in larger organizations. The percentage use of levels 1 through ROI was not found to be statistically significant in organizations where evaluation results are routinely reported to executive management. This finding is contrary to prior research by Hill (1999) and by Gutek (1988). Gutek (1988) found that "there was more frequent training-evaluation activity for training directors who were required to report training-evaluation results than for those who were not required to report such results" (p. 117).

Differences in barriers were associated with the level of evaluation conducted which supported Research Question 3. Reported barriers to evaluation at Levels 1 and 2, were that evaluation was not required by the organization, the cost in person-hours and/or capital, lack of training and/or experience in using evaluation, and little perceived value to the organization. Barriers for Levels 3 and 4 (plus ROI) were cost, not required by the organization, and a lack of training in evaluation methods. Past research regarding

barriers to evaluation is consistent in identifying cost, lack of training, and that the organization does not require evaluation (Phillips, 1997a, 1997b, 1997c; Twitchell, 1997; Hill, 1999).

Conclusions

The findings from this study support several conclusions. These are presented according to research questions.

Conclusion One

Evaluation of formal, employer-sponsored training in the financial services industry is typically completed at Level 1. Level 1 reaction questionnaires provide an immediate, relatively inexpensive method of examining a training program. Growing interest by top-level executives will increase the likelihood that more extensive evaluation is required, despite the ease of administration and low expense associated with Level 1 evaluations. Results also indicated evaluation methods become less utilized as the levels, or difficulty of evaluation, increases.

Conclusion Two

Evaluation using ROI appears to be the most difficult to implement. Additionally, responses indicated that there was not a clear consensus on what method of return of investment evaluation to use and how to implement it into the program.

Conclusion Three

There is a lack of integration of financial analysis in training evaluation as evidenced by the lack of responses to survey items regarding Level 4 methods of evaluation including ROI. Perhaps the resources required to utilize evaluation at higher

levels are not readily available in most organizations. The most frequently reported academic preparation at the bachelor degree level was education and psychology. These majors do not normally prepare a person to complete the required financial or statistical analysis needed for higher levels of evaluation. At the master's degree level, there were twice as many business and education majors than any other major, with business and education majors split almost evenly. At the doctorate level, the focus was on education, with two PhDs in educational administration and one in educational psychology. Additionally, one respondent obtained a PhD in industrial psychology and one was in the process of obtaining a PhD in a business related field. Even if the skills required to carry out higher levels of evaluation were acquired during an individual's education, the implementation of the statistical processes necessary for these levels of evaluation may be met with resistance from coworkers who may not fully understand the significance of the underlying concepts. Therefore, practical application may not be possible.

Conclusion Four

The barriers to training evaluation identified in this study were cost, lack of requirement by the organization, and a lack of training and/or experience with the various methods of evaluation. Previous research (Hill, 1999) has suggested that perhaps these barriers are actually symptoms and evidence of the perceived low need for training evaluation among organizational leadership. The barriers indicate that evaluation is not a critical need of the organization, since these barriers could be overcome with additional resources (Twitchell, 1997; Gutek, 1998). Depending on the values of the organization

and the priorities established within upper management, each barrier could be reduced or eliminated.

Recommendations to Organizations

Based upon the conclusions discussed above, as well as the relevant literature, the following recommendations should be considered. First, the message that evaluation is important must be echoed throughout the organization, beginning with the leadership of the training department. Evaluation, when done correctly, provides an opportunity for the training department to justify its existence and sell its capabilities to the rest of the organization. To accomplish this goal, it may be necessary to employ training managers with a great deal of experience in conducting and analyzing evaluations at a level greater than simple reaction forms.

Second, if an organization wishes to increase the utilization of evaluation practices with its training programs, it is recommended that specific training in evaluation methods be provided to staff members that will be involved in the training process. The level of training may vary depending on the staff members' responsibilities. However, it is important that all staff members have a basic understanding of the importance of evaluation and that the evaluation component of the training process be addressed throughout the curriculum development cycle.

Additionally, evaluation should not be completed just to say it has been done. Instead, it should be completed with an eye toward how the information will be of use to the organization. In turn, reports detailing the evaluation results should be geared

towards those members of the organization that will find the information useful and insightful.

Recommendations for Further Research

The purpose of this study was to explore the current status of employee-sponsored training evaluation in the financial services industry. Some possible topics further research include the following: (1.) A replication of this study could be performed either within a smaller segment of the financial services industry, or within another industry to determine if similar results could be obtained. (2.) A qualitative study could be conducted through in-depth interviews with selected respondents to explore in greater detail the relationships between organizational characteristics and the implementation of higher levels of evaluation. (3.) A case study could be conducted to analyze the implementation of higher levels of evaluation, including the obstacles and successes encountered.

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APPENDIX A

SURVEY INSTRUMENT:

SURVEY OF PRESENT PRACTICES IN TRAINING EVALUATION:

U.S. FINANCIAL SERVICES INDUSTRY

Survey of Present Practices in Training Evaluation:
Financial Services Industry

Introduction: The term "education/training" includes any employer-sponsored education/training that addresses knowledge and skills needed for financial services staff development. This includes both employee-delivered and contractor-provided education/training. The Survey Form # listed at the top of the survey form is used to secure sampling adequacy, and facilitate follow-up on unreturned surveys. To maintain confidentiality, the list that matches your name to this code number will be destroyed after responses are coded and a mailing list is compiled for survey results. No individual response information will be released to anyone before or after this list is destroyed.

Section A: Measures of Reaction

Section A relates to the use of participant reaction forms to measure participants' post-education/training satisfaction with course content, instructors, facilities, audio-visual equipment and, in some cases, how the participants plan to use the information from the course.

A1. What percentage of your organization's currently active education/training programs use participant reaction forms or other methods to gain information on participants' post-training thoughts or feelings about various aspects of a program such as content, instruction, facilities, materials, or usefulness? _____%

(If you entered 0% for question A1, please skip to question A3.)

A2. Please estimate the percentage of programs in which your organization uses each of the various methods listed below to evaluate reaction. Please circle the number corresponding to the percentage of use of each method listed. If you do not use a method, please circle 1.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Reaction Questionnaires	1	2	3	4	5	6
Action Plans	1	2	3	4	5	6

In the space below, please write in any additional evaluation methods used and circle the number corresponding to percent of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
	1	2	3	4	5	6
	1	2	3	4	5	6

A3. When you do not evaluate participant reaction to an education/training program, what are the reasons? Check all that apply.

- ❑ Little perceived value to the organization
- ❑ The cost in person-hours and/or capital
- ❑ Not required by the organization
- ❑ Evaluation takes too much time from the course
- ❑ Lack of training or experience in using this form of evaluation
- ❑ Training is done only to meet legal requirements
- ❑ Policy prohibits the evaluation of employees by the training department

Other reasons: _____

_____

Comments: _____

_____

Section B: Measures of Learning

Section B relates to evaluation methods that measure learning resulting from an education/training program.

B1. What percentage of your organization's currently active training programs use evaluation methods to measure learning resulting from training? _____%

(If you entered 0% for question B1 above, please skip to question B3.)

B2. Please estimate the percentage of programs in which your organization uses each of the various methods listed below to evaluate learning. Please circle the number corresponding to the percentage of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Written pre-test/post-test	1	2	3	4	5	6
Written post-test only	1	2	3	4	5	6
Simulations	1	2	3	4	5	6
Work Samples	1	2	3	4	5	6
Skill Demonstrations	1	2	3	4	5	6
On-the-Job Demonstrations	1	2	3	4	5	6
Self-Assessment	1	2	3	4	5	6
Team Assessment	1	2	3	4	5	6
Facilitator/Instructor Assessment	1	2	3	4	5	6

In the space below, please write in any additional evaluation methods used and circle the number corresponding to percentage of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
	1	2	3	4	5	6
	1	2	3	4	5	6

B3. When you do not evaluate learning that took place during an education/training program, what are the reasons? Check all that apply.

- ❑ Little perceived value to the organization
- ❑ The cost in person-hours and/or capital
- ❑ Not required by the organization
- ❑ Evaluation takes too much time from the course
- ❑ Lack of training or experience in using this form of evaluation
- ❑ Training is done only to meet legal requirements
- ❑ Policy prohibits the evaluation of employees by the training department

Other reasons: _____

_____

Comments: _____

_____

Section C: Measures of On-the-Job Application

Section C relates to evaluation methods that measure the transfer of learning to the job. These measures typically take place several weeks or months after an education/training program and measure actual use of the knowledge or skills gained during education/training.

C1. What percentage of your organization's currently active education/training programs use evaluation methods that measure the amount of learning transferred to the job? _____%

(If you entered 0% to question C1 above, please skip to question C3.)

C2. Please estimate the percentage of programs for which your organization uses each of the various methods listed below to evaluate the use of learning on the job. Please circle the number corresponding to the percentage of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Anedcotal Information	1	2	3	4	5	6
Observation	1	2	3	4	5	6
Performance Appraisal	1	2	3	4	5	6
Existing Records Other than Performance Appraisal	1	2	3	4	5	6
Records Produced Specifically for Evaluation Purposes	1	2	3	4	5	6
Assessment by Trainee's Subordinate	1	2	3	4	5	6
Self-Assessment	1	2	3	4	5	6
Peer Assessment	1	2	3	4	5	6

Assessment by Trainee's Supervisor	1	2	3	4	5	6
Focus Groups	1	2	3	4	5	6
Follow-Up Assignments	1	2	3	4	5	6
Action Plans	1	2	3	4	5	6
Performance Contracts with Supervisor	1	2	3	4	5	6

In the space below, please write in any additional evaluation methods used and circle the number corresponding to the percent of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
	1	2	3	4	5	6
	1	2	3	4	5	6

C3. When you do not evaluate transfer of learning to the job after an education/training program, what are the reasons? Check all that apply.

- ❑ Little perceived value to the organization
- ❑ The cost in person-hours and/or capital
- ❑ Not required by the organization
- ❑ Evaluation takes too much time from the course
- ❑ Lack of training or experience in using this form of evaluation
- ❑ Training is done only to meet legal requirements
- ❑ Policy prohibits the evaluation of employees by the training department

Other reasons: _____

_____

Comments: _____

_____

Section D: Measures of Outcomes

Section D relates to evaluation methods that measure organizational change (outcomes) due to a change in performance as a result of learning that occurred in a training program. These measures usually compare conditions prior to training to conditions after training has been completed and link the change to the training program.

D1. What percentage of your organization's currently active training programs use evaluation methods that measure organizational outcomes that occur after a training program? _____%

(If you entered 0% to question D1 above, please skip to question D3.)

D2. Please estimate the percentage of programs in which your organization uses each of the various methods listed below to evaluate organizational outcomes. Please circle the number corresponding to the percent of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Anecdotal Information	1	2	3	4	5	6
Estimates of improved productivity before and after measures related to the training goal	1	2	3	4	5	6
Cost Savings	1	2	3	4	5	6
Compliance with Federal, State, and Local Regulations	1	2	3	4	5	6
Isolate for Effects of Program	1	2	3	4	5	6

In the space below, please write in any additional evaluation methods used and circle the number corresponding to the percent of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
	1	2	3	4	5	6
	1	2	3	4	5	6

D3. What percentage of your organization's currently active training programs use evaluation methods that measure return on investment (ROI)? _____%

(If you entered 0% above to question D3, please skip to question D5.)

D4. Please estimate the percentage of currently active programs in which your organization uses each of the various methods listed below to evaluate return on investment. Please circle the number corresponding to the percent of use. (For definitions of these programs, please see notes at the end of this survey.)

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Traditional Return on Investment Calculation	1	2	3	4	5	6
Benefit/Cost Analysis	1	2	3	4	5	6
Payback Period	1	2	3	4	5	6
Net Present Value (NPV)	1	2	3	4	5	6
Internal Rate of Return (IRR)	1	2	3	4	5	6
Utility Analysis	1	2	3	4	5	6
Balanced Scorecard	1	2	3	4	5	6
Consequences of Not Training	1	2	3	4	5	6

In the space below, please write in any additional evaluation methods used and circle the number corresponding to the percentage of use.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
	1	2	3	4	5	6
	1	2	3	4	5	6

D5. When you do not evaluate training at the return-on-investment level, what are the reasons? Check all that apply.

- ❑ Little perceived value to the organization
- ❑ The cost in person-hours and/or capital
- ❑ Not required by the organization
- ❑ Evaluation takes too much time from the course
- ❑ Lack of training or experience in using this form of evaluation
- ❑ Training is done only to meet legal requirements
- ❑ Policy prohibits the evaluation of employees by the training department

Other reasons: _____

_____

Comments: _____

_____

Section E: Training and Evaluation in the Organization

E1. Please indicate the percentage of currently active programs in which your organization starts planning the evaluation process at each of the stages listed below.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Prior to Program Development	1	2	3	4	5	6
As the First Step in Program Development	1	2	3	4	5	6
During Program Development	1	2	3	4	5	6
After Program Development	1	2	3	4	5	6
When Training Program Results Must be Documented	1	2	3	4	5	6
Evaluations Are Not Implemented	1	2	3	4	5	6

E2. Employee development programs are delivered for a variety of reasons and have different levels of participation. Please indicate the percentage of your currently active programs that match the descriptions listed on the right. Respond to all reasons that apply.

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Employees are Sent to the Program as a Reward	1	2	3	4	5	6
All employees involved in an activity or specific group attend this program	1	2	3	4	5	6
Participants will acquire new attitudes by attending this program	1	2	3	4	5	6
Participants in this program will be able to perform at a set level	1	2	3	4	5	6
When Training Program Results Must be Documented	1	2	3	4	5	6
A change in organizational Outcomes will result from this course	1	2	3	4	5	6

E3. Approximately what percentage of the employee education/training staff is involved in evaluation?

0%	1-19%	20-39%	40-59%	60-79%	80-100%
1	2	3	4	5	6

E4. Approximately what percentage of the employee education/training budget is applied to evaluation?

0%	1-19%	20-39%	40-59%	60-79%	80-100%
1	2	3	4	5	6

E5. Approximately what percentage of the employee education/training staff has formal preparation in evaluation?

0%	1-19%	20-39%	40-59%	60-79%	80-100%
1	2	3	4	5	6

E6. How do you isolate the effects of a training program?

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
Use of control groups	1	2	3	4	5	6
Trend line analysis	1	2	3	4	5	6
Forecasting methods	1	2	3	4	5	6
Participant estimate of training's impact	1	2	3	4	5	6
Supervisor estimate of training's impact	1	2	3	4	5	6

Management estimate of training's impact	1	2	3	4	5	6
Customer/client input of training's impact	1	2	3	4	5	6
Expert estimate of training's impact	1	2	3	4	5	6
Subordinate estimate of training's impact	1	2	3	4	5	6

Other methods used to isolate the effectiveness of the program:

	0%	1-19%	20-39%	40-59%	60-79%	80-100%
	1	2	3	4	5	6
	1	2	3	4	5	6

Comments: _____

_____

E7. Circle the percentage of currently active education/training programs that must be evaluated in order to receive continued funding.

0%	1-19%	20-39%	40-59%	60-79%	80-100%
1	2	3	4	5	6

E8. What percentage of the total education/training budget is dedicated to evaluation activities?

0%	1-19%	20-39%	40-59%	60-79%	80-100%
1	2	3	4	5	6

E9. Financial expertise is available to support training evaluation if requested from sources within the organization (example: assistance with acquisition of business data such as turnover, unit costs, sales data, etc.).

Yes____ No_____

If yes, do you routinely use this financial expertise to support education/training evaluation?

Yes____ No_____

E10. How is employee development funded in your organization? Check only one.

- ❑ Separate training budget
- ❑ Administrative budget and no chargeback for program attendance
- ❑ Separate training budget and separate profit center
- ❑ Administrative budget and some form of chargeback for program attendance
- ❑ Other: _____

E11. Is a written training evaluation policy in place in your organization? Yes____ No_____

If 'No', skip to question E14.

E12. To what extent does your written evaluation policy guide the evaluation process? Please circle the number corresponding to the percent of use.

0%	1-19%	20-39%	40-59%	60-79%	80-100%
1	2	3	4	5	6

E13. Which levels of evaluation are covered by the written policy? Check all that apply.

- ❑ Level 1 (reaction)
- ❑ Level 2 (learning)
- ❑ Level 3 (on-the-job application)
- ❑ Level 4 (organizational outcomes)
- ❑ Return on Investment (ROI)
- ❑ Other: _____

E14. Which criteria are important in selecting education/training programs for evaluation at the return-on-investment level? Rank the following ten items (including your specified 'other' item) in order of importance: 1 is most important; 10 is least important.

___ Involves large target audience
___ Take a significant investment of time
___ Expected to have a long life cycle
___ Have high visibility
___ Important to strategic objectives
___ Have a comprehensive needs assessment
___ Links to operational goals and issues
___ Have the interest of top executives
___ Are expensive
___ Other: _____

E15. Which criteria would be most important in determining the most effective method of calculating return-on-investment of training? Rank the following ten items (including your specified 'other' item) in order of importance: 1 is most important; 10 is least important.

___ Simple
___ Be appropriate for a variety of programs
___ Economical
___ Be applicable with all types of data
___ Credible
___ Include program costs
___ Theoretically sound
___ Have a successful track record
___ Account for other factors
___ Other: _____
(e.g., isolate variables other than training)

E16. Education/training program evaluation information is routinely reported to executive management in my organization.

Yes____ No____

Section F: DEMOGRAPHIC INFORMATION

Please provide the following information about your whole organization (not just the training division):

F1. Type of organizational structure: (Check all that apply.)

- ❑ Corporation
- ❑ Partnership
- ❑ Sole Proprietorship
- ❑ Other: : _____

F2. Type of financial services provided: (Check all that apply.)

- ❑ Banking
- ❑ Broker/Dealer
- ❑ Discount Brokerage
- ❑ Life Insurance
- ❑ Mutual Fund
- ❑ Trust Services
- ❑ Other: _____

F3. Size of organization (include full-time, part-time, and contract employees):

- ❑ 1-249
- ❑ 250-499
- ❑ 500-749
- ❑ 750-999
- ❑ 1,000-1,249
- ❑ 1,250-1,499
- ❑ 1,500-1,749
- ❑ 1,750-1,999
- ❑ 2,000-2,249
- ❑ 2,250-2,499
- ❑ Over 2,500

F4. Number of employees working in the United States: _____

F5. Number of U.S. employees in education/training last year: _____

F6. Number of years your organization has been providing training: _____

F7. Your title:

- ❑ President
- ❑ Vice President
- ❑ Coordinator
- ❑ Manager
- ❑ Supervisor
- ❑ Director
- ❑ Administrator
- ❑ Other: _____

F8. Your job function as indicated in your job title:

- ❑ Training
- ❑ HRD (Human Resource Development)

- ❑ Education
- ❑ HRM (Human Resource Management)
- ❑ Training and development
- ❑ HR (Human Resources)
- ❑ Training and Education
- ❑ Other: _____

F9. Number of years you personally have been performing a training function in this or any other position (in any company)

- ❑ 1-5 years
- ❑ 5-10 years
- ❑ 10 or more years

F10. Gender

- ❑ Male
- ❑ Female

F11. Academic preparation (Check levels completed and enter major field of study.)

- ❑ Associate degree Major: _____
- ❑ Bachelor's degree Major: _____
- ❑ Master's degree Major: _____
- ❑ Doctorate degree Major: _____

Other education, training or development not covered by above categories (type or subject/field of study):

_____

F12. Were there any specific items of interest not covered by this survey? _____

_____

F13. Do you have general comments regarding this research? _____

_____

Thank you for completing this questionnaire. I will be contacting you to set up an appointment to collect your responses via telephone. Alternatively, you may use the enclosed stamped, self-addressed envelope to return this survey by October 1, 2002 to:

Angela K. Gomez
5510 S. Rice Ave. #2031
Houston, TX 77081

If you would like to have your organization listed in the final report as a participant in this research study, please contact Angela Gomez at 713-667-3629 or email: akgomez@aggies.com to discuss.

Please return completed survey to:
Angela K. Gomez

5510 S. Rice Ave. #2031
Houston, TX 77081
Phone: 713/667-3629
e-mail: akgomez@aggies.com
Survey #_____

Notes

Traditional Return on Investment Calculation (ROI): Return on investment (ROI) is a financial analysis method that is used to determine if resources are being used profitably. A common formula for ROI is ROI (%) = Net Program Benefits/Program Costs x 100.

Benefit/Cost analysis: The relationship between the program benefits (returns) and program costs (associated with the investment) is often expressed as a ratio: BCR = Program Benefits/Program Costs.

Payback period: Payback period represents the length of time required to recover an original amount invested through the investment's cash flow and is expressed by the following formula: Payback Period = Initial Investment/Cash Flow Per Year.

Net Present Value (NPV): Net present value (NPV) is a financial analysis method where all expected cash inflows and outflows are discounted to the present point in time, using a pre-selected discount rate. The present values of the inflows are added together, and the initial outlay (and any other subsequent outflows) is subtracted. The difference between the inflows and outflows is the net present value.

Internal Rate of Return (IRR): Internal rate of return (IRR) is a financial analysis method that uses a time-adjusted rate of return. The IRR is the rate at which the present value of the inflows equals the present value of the outflows, or the rate at which the NPV is equal to zero. This method determines the interest rate required making the present value of the cash flow equal to zero. It represents the maximum rate of interest that could be paid on a project breakeven basis using borrowed funds.

Utility Analysis: Utility analysis examines the relationship between productivity and job performance. One version of the utility formula is presented by Godkewitsch: F = N[(ExM)-C], where F = financial utility; N = number of people affected; E = effect of the intervention; M = monetary value of the effect; and C = cost of the intervention per person. E is also measured in standard deviation units.

Balanced Scorecard: The Balanced Scorecard is a framework to evaluate organizational performance by linking four perspectives: financial, customer, internal business, and innovation learning. Managers select a limited number of critical indicators within each of the four perspectives' (Kaplan & Norton).

Consequences of Not Training: The financial (and other) impact analysis of not conducting training.

APPENDIX B

COVER LETTER FOR SURVEY INSTRUMENT

July 25, 2002

[Letterhead] Texas A&M University
Department of Educational Psychology
College Station, TX 77843

Ms. Jane Doe
Mutual Fund XYZ Training Department
PO Box 12092
Houston TX 78746-1212

Dear Ms. Doe:

Success in the financial services industry depends on effective employee education/training. Yet, the success of training itself depends on effective evaluation methods to ensure that staff development resources yield desired results.

For this reason, I am conducting research in training evaluation methods in financial services organizations. By surveying these entities, I hope to identify effective evaluation methods and, thereby, provide information to organizations such as yours which might enhance the quality of education/training.

As a subscriber to DALBAR, Inc., you are uniquely positioned to inform both this research and the broader effort to expand and share financial services training evaluation expertise. Thus, I would greatly appreciate your completing the enclosed survey. I will be contacting you to set up a specific time to call and collect your answers to this survey via telephone. The entire survey process should take no more than 20-30 minutes. Alternatively, you may return the survey in the postage-paid envelope by August 23, 2002.

Your participation is vital yet voluntary, and your name and organization/institution will remain confidential. Only aggregated results will be published. All respondents will receive a research results summary and a listing of education/training evaluation literature references upon the anticipated completion date of December 1, 2002.

Should you need more information please contact me via phone at (713) 667-3629 or via email at akgomez@aggies.com. Your time and attention to this matter is greatly appreciated.

Sincerely,

Angela K. Gomez
Doctoral Candidate
Texas A&M University

Research Supervised By:
Drs. Michael J. Ash & Joyce E. Juntune
Department of Educational Psychology
Texas A&M University

Encl: Research Questionnaire & Postage-Paid Response Envelope

APPENDIX C

SURVEY REMINDER POSTCARD

You were recently sent a survey entitled, Survey of Present Practices in Training Evaluation: U.S. Financial Services Industry. This survey is part of a research project to determine how education/training is evaluated in financial services organizations. Your participation is vital in defining current standards and practices in financial services training evaluation. Please be assured that any information you provide will remain strictly confidential. Survey participants will receive a copy of the results after December 2002.

If you have already completed and returned your survey, please accept my sincere thanks. If not, please do so today and return the questionnaire in the postage-paid envelope supplied with the survey. Because the survey has been sent to a small number of people, your responses are extremely valuable.

If you did not receive the survey, please call.

Thank you!

Angela K. Gomez, Doctoral Candidate
Texas A&M University
713-667-3629

APPENDIX D

PERCENTAGE OF TRAINING PROGRAMS

USING PARTICIPANT REACTION FORMS (LEVEL ONE EVALUATION)

SURVEY ITEM A1

1. 100% for programs over 2 hours

APPENDIX E

RESPONSES TO "OTHER" METHODS USED TO

EVALUATE AT EACH EVALUATION LEVEL

RESPONSES TO "OTHER" METHODS
LEVEL ONE EVALUATION
SURVEY ITEM A2

1. Focus Groups (20-39%)
2. Program Evaluations/Raters (80-100%)
3. Integrated Functional Team Executive Reports (40-59%)
4. Level 3 evals of employees and managers (1-19%)
5. Pre-Training Surveys (60-79%)
6. Knowledge Assessments (20-39%)
7. Supervisor feedback (40-59%)
8. Post-post training (1-19%)
9. Verbal comments (40-59%)
10. Results/behavior change (40-59%)
11. Web based feedback (40-59%)
12. Quality monitoring (80-100%)
13. Knowledge Assessments (1-19%)
14. Behavior Assessments (1-19%)
15. Pre-Test (80-100%)
16. Post-Test (80-100%)
17. Pre & post tests (1-19%)
18. Post class phoning (40-59%)
19. Steering committee participation surveys (20-39%)
20. Verbal +/- (20-39%)
21. Periodic manager feedback (60-79%)

22. Annual employee engagement surveys (covers many topics, including training) (80-100%)
23. Testing Results (60-79%)
24. Knowledge transfer tests (1-19%)
25. ROI reports (1-19%)

RESPONSES TO "OTHER" METHODS
LEVEL TWO EVALUATION
SURVEY ITEM B2

1. Pre skill assessment (time/performance objectives) (40-59%)
2. Post skill assessment 30, 60, 90 day intervals (40-59%)
3. Quality Assurance Monitoring (80-100%)
4. Are longer-term applied soft skill sessions, where we have other means of follow up.
5. Certification (20-39%)
6. On-line Pre/Post Test (40-59%)
7. On-line Self Assess. (40-59%)
8. Standardized industry-related certification exams administered by vendor (1-19%)
9. Online Test (20-39%)
10. Workplace observations
11. We use many evaluation methods concurrently
12. Supervisor meetings
13. Computer Web Based Testing (60-79%)

RESPONSES TO "OTHER" METHODS
LEVEL THREE EVALUATION
SURVEY ITEM C2

1. Training Plans (60-79%)
2. Individual Learning Plans (80-100%)

3. Internal Quality Programs (60-79%)
4. Electronic Post Trng Form-Transfer of Learning Obj. (80-100%)

RESPONSES TO "OTHER" METHODS
LEVEL FOUR EVALUATION
SURVEY ITEM D2

1. Rigorous measures of pre & post production-not estimates (40-59%)-will be 80% by yr-end
2. Improved Quality [illegible] (40-59%)
3. Steering committee Feedback (1-19%)

RESPONSES TO "OTHER" METHODS
RETURN ON INVESTMENT
SURVEY ITEM D4

1. Cost Analysis: Training Cost Savings (Live vs Virtual) – (60-79%)
2. Risk Analysis: "Go vs. No Go" Decision Tree (60-79%)
3. Value of training based on salary and additional proficiency (1-19%)

APPENDIX F

RESPONSES TO "OTHER" REASONS FOR NOT EVALUATING

AT VARIOUS LEVELS OF EVALUATION

REASONS LEVEL ONE
EVALUATION IS NOT CONDUCTED
SURVEY ITEM A3

1. We use the forms always so the question has no possible answer for us.
2. We have a standard/minimum that is 100% of all training must have a level one reaction sheet of >3.5 (on a scale of 5) regarding content, interaction, practice time, facilities and trainer effectiveness.
3. Lack of time to develop for specific topic area or didn't see need.
4. We forget.
5. Lack of resources to tabulate and track info in a consistent manner.
6. The only time we don't do it is instructor forgets.
7. I actually did a master's paper on evaluation methods appropriate for my division. I was surprised to find out that in a fast-paced business environment, managers are less concerned about reaction than results. In a small organization (100 employees in my division), managers can "see" if there are results and do not need statistical back-up to evaluate. When comparing other parts of our firm and other firms, somewhere around 250-300 employees the size of the organization makes it impossible for the managers to observe training results and they need more reporting. Instead of implementing Kirkpatrick's Four Levels, we chose to use the model which elicits from the managers what information they need to make their decisions (managers includes the training manager). We only evaluate for those items which may be very specific or very broad. They may vary from training incident to incident, and they may only be short term.
8. We systematically administer & collect affective reaction surveys, but the evaluation of the data is inconsistent.

9. To my knowledge all training programs use at least a Level 1 evaluation.
10. We use a training critique form that is intended to be completed with all instructor lead courses and seminars.
11. Introductory sessions for large audiences may not lend themselves to this type of evaluation.
12. Scope of training intervention considered limited – in that the intervention may be a one-time offering, or for a small # of people - so that end of program results could/would not be acted upon.
13. Short programs or information only e.g. compliance training
14. Might be short course/meeting

REASONS LEVEL TWO EVALUATION
IS NOT CONDUCTED
SURVEY ITEM B3

1. Lack of Instructional Design Experience. A lot of the courses were developed by SMEs-not skilled at developing instruction that is easily or effectively evaluated.
2. There's little perceived value since most members of Training Dept lack experience with training evaluation.
3. Are longer-term soft-skill sessions, where we have other means of follow up.
4. All technical training must have a level two proficiency/skill test where we expect >80% proficiency.
5. We are building the infrastructure (systems, processes, tools, & knowledge) to support more sophisticated types of evaluation. We will measure training effectiveness w/in the next 6 months.
6. Might be short course/meeting
7. Although we haven't done this in the past, we've recently reorganized our department and will be doing this in the near future.
8. I'm not sure where to include role playing when measuring learning. I don't consider it the same as simulation, it could possibly be skill demonstration. If it is considered either simulation or skill demonstration, my response would be higher

in that area. We use role playing extensively in our training and many times are able to use it as an effective way to measure learning. At times it is just an activity to reinforce learning, and at other times it is used as a measurement tool.

9. Comment-We are in the process of conducting this level of evaluation on all training. It is taking time to get this fully implemented.
10. The value of all our training programs is evaluated so none of the above apply.
11. Teleconference data update meetings/training sessions typically do not provide opportunities to measure associate growth in knowledge, skills, and/or abilities.
12. Dependent upon course content.
13. Might be a short course or meeting.
14. 1. Logistically difficult to administer higher levels of evaluation, hence the cost. 2. Not defined by the client.
15. The item checked above [The cost in person-hours and/or capital] refers to reluctance of managers/supervisors to follow-up after training.
16. Some training professionals don't seemingly know how to develop effective Level 2 evaluation so it seems conveniently ignored.
17. Training time is limited
18. Short programs
19. Esp. Leadership, soft skills – the org. results
20. Vendor-taught classes often do not provide this level of evaluation.

REASONS LEVEL THREE EVALUATION
IS NOT CONDUCTED
SURVEY ITEM C3

1. Lack of Instructional Design Experience. A lot of the courses were developed by SMEs-not skilled at developing instruction that is easily or effectively evaluated.
2. Not enough training staff
3. We use a survey to conduct some of our self assessments pre and post training.
4. We plan on doing this moving forward.
5. Measure via sales results.

6. For the same reason given in Section B [We are building the infrastructure (systems, processes, tools, & knowledge) to support more sophisticated types of evaluation. We will measure training effectiveness w/in the next 6 months.]
7. Too busy building programs to evaluate results
8. Employees are all evaluated as to how they use skills learned on the job
9. Difficulty in gathering timely, objective performance ratings
10. Much training is theoretical and difficult to quantify
11. We use a survey to conduct some of our self assessments pre and post training
12. One-on-one training situations/no classroom
13. Once again, it's the time commitment of supervisors/managers that's the issue.
14. Lack of information on how performance is truly evaluated on the job.

REASONS RETURN ON INVESTMENT
EVALUATION IS NOT CONDUCTED
SURVEY ITEM D5

1. Small staff-no time!
2. We constantly look to improve our processes – ROI – and performance
3. If ROI factors are not evident or available.
4. Measure via sales results.
5. ROI requires significant research. In sales related training we find it of little value-we're going to train our sales people in any case. Wish it were easier to measure & we would measure it! Too many variables.
6. To date, performance improvements have been sufficient. ROI may be a 2003 initiative.
7. ROI is impacted by multiple factors and combinations of drivers. I have yet to find a proven method to isolate the ROI of a training intervention. Overall, ROI can be identified if one also acknowledges the other contributing factors.
8. Most of the regulatory training must be completed regardless of outcome. It is our intent however for the regulatory training to enhance employee performance both in terms of technical ability and customer service.

9. It is hard to determine the real indicator of the impact, complexity of a number initiatives on one measurement i.e. retention
10. Difficult to measure
11. Cause and effect relationship difficult to establish, so puts the credibility of an ROI at issue.
12. It is impossible to tie back results to any specific training program and/or training in general. The main reason it is not conducted is because it is not required by the organization.
13. Not considered at this time.
14. Training is provided to membership. Those attending may determine ROI.

APPENDIX G

PERCENTAGE OF TRAINING PROGRAMS USING EVALUATION METHODS TO MEASURE ORGANIZATIONAL OUTCOMES

SURVEY ITEM D1

1. 40% now; 80% by yr-end 2002

APPENDIX H

RESPONSES REGARDING THE STAGE AT WHICH PLANNING FOR THE EVALUATION PROCESS BEGINS

SURVEY ITEM E1

1. Comment: This is a new process I introduced to the operations division training about 1 yr ago. It is still in its infancy but doesn't appear to be done consistently in other divisions. (Aside: I work for corporate, but do consulting w/diff divisions.)
2. Currently working on centralizing things. Have goals of earlier planning. Current reality is that the evaluation planning process starts after program development 80-100% of the time & only when the training must be documented 40-59% of the time.

APPENDIX I

COMMENTS CONCERNING REASONS WHY EMPLOYEE DEVELOPMENT PROGRAMS ARE DELIVERED

SURVEY ITEM E2

1. Employees attend our training programs as part of a standard, required curriculum.

APPENDIX J

COMMENTS CONCERNING PERCENTAGE OF

TRAINING STAFF INVOLVED IN EVALUATION

SURVEY ITEM E3

1. 80-100% → LEVEL 1 only/Other levels it varies

APPENDIX K

RESPONSES TO "OTHER" METHODS USED

TO ISOLATE THE EFFECTS OF A TRAINING PROGRAM

SURVEY ITEM E6

1. Objective measurement based on performance objectives (80-100%) Performance factors are identified then
2. It is impossible to isolate because of so many variables involved.
3. This is my greatest challenge.
4. Anecdotal

APPENDIX L

COMMENTS CONCERNING THE PERCENTAGE OF CURRENTLY ACTIVE EDUCATION/TRAINING PROGRAMS THAT MUST BE EVALUTED IN ORDER TO RECEIVE CONTINUED FUNDING

SURVEY ITEM E7

1. Not specifically linked to funding – linked to mandate from our B.U. President

APPENDIX M

RESPONSES TO "OTHER" DESCRIPTIONS OF

HOW EDUCATION/TRAINING IS BUDGETED

SURVEY ITEM E10

1. Again, this is required training, not [illegible]
2. Other: Departmental Budget
3. As needed
4. Separate training budget and charge-backs for failure to attend/late drop. Also sell excess training capacity in certain classes as public classes to generate income.
5. Departmental budget
6. Allocations by lines of business
7. Again-this is field trng, not HO

APPENDIX N

RESPONSES TO WHETHER OR NOT THERE IS A WRITTEN TRAINING EVALUATION POLICY IN PLACE IN THE ORGANIZATION

SURVEY ITEM E11

1. Yes, but outdated.

APPENDIX O

RESPONSES TO "OTHER" LEVELS OF

EVALUATION COVERED BY A WRITTEN POLICY

SURVEY ITEM E13

1. Compliance
2. Performance based

APPENDIX P

RESPONSES TO 'OTHER' CRITERIA FOR CONSIDERATION IN DETERMINING WHICH PROGRAMS SHOULD EVALUATED AT THE RETURN ON INVESTMENT LEVEL

SURVEY ITEM E14

1. Other: effect on corporate culture
2. Note: We do not currently do ROI
3. NA We don't do it at all.
4. Need to start evaluating training regularly
5. Other: Course developed for company specific purposes

APPENDIX Q

RESPONSES TO 'OTHER' CRITERIA FOR CONSIDERATION IN DETERMINING AN EFFECTIVE RETURN ON INVESTMENT METHOD FOR EVALUATION OF TRAINING

SURVEY ITEM E15

1. Meaningful
2. We would only do ROI if required; this would be the criteria.

APPENDIX R

COMMENTS CONCERNING CRITERIA IMPORTANT IN SELECTING EDUCATION/TRAINING PROGRAMS FOR EVALUATION AT THE RETURN ON INVESTMENT LEVEL

SURVEY ITEM E15

1. Very difficult to rank – many are typically criteria
2. This asks for method not factors associated w/the effectiveness.

APPENDIX S

RESPONSES TO IS EDUCATION/TRAINING PROGRAM EVALUATION INFORMATION ROUTINELY REPORTED TO EXECUTIVE MANAGEMENT SURVEY ITEM E16

1. Some are/some aren't
2. For some programs, yes!
3. Varies by organization
4. Depending on the program

APPENDIX T

RESPONSES TO 'OTHER' ORGANIZATION STRUCTURES

SURVEY ITEM F2

1. Retail distributor: A business unit within _____.
2. Mutual Holding Company
3. Association
4. Financial Services
5. Mortgage
6. High net worth services
7. Property & Casualty Insurance, Other Personal Lines (Home, Auto, etc.)
8. Investment Management
9. Software, EFT, Risk Mgmt

APPENDIX U

RESPONSES TO 'OTHER' JOB TITLES

SURVEY ITEM F7

1. Senior Internal Consultant
2. Assistant Director
3. Internal Training Consultant
4. Assistant Vice President

APPENDIX V

RESPONSES TO ACADEMIC PREPARATION BY DEGREE AND MAJOR

SURVEY ITEM F11

Associate Degree

IT

Bachelor Degree

Education	Psychology	Education
Accounting	Education	Education/Sociology
Psychology	Theater Arts	Comp Science/Logistics
History/Political Science	Industrial Psychology	Marketing
Sociology	Education	Art History
Economics	Biology	History
Education	Education	Education/Accounting
Marketing	Business Management	Sociology
General Business Administration	Chemical Engineering	Business

Master Degree

MBA	Adult Education
Education	MBA
MA in Communication	MBA
Industrial Org Psychology	Speech Communication
Management	Org Development (in progress)
Human Resource Education	Training & HRM (2/03)
General Counseling	MBA
MBA	MA in Adult Learning
HRIR	MBA Management
Industrial Psychology	Executive MBA
History	Training & Development
Education	Instructional Design
Organizational Development	Counseling
Organizational Communication	Industrial/Organizational Psychology
MBA	Education
Mass Communication	MBA
Finance	H.R. M&D
Performance Technology	

Doctorate

Special Education/Administration	Business (In progress)
Industrial/Organizational Psychology	Educational Psychology

Educational Administration	

APPENDIX W

RESPONSES TO 'OTHER' EDUCATION, TRAINING OR DEVELOPMENT

SURVEY ITEM F11 - OTHER

1. Teaching Credential
2. 25 years OJT, Finance, Training, Instructional Design
3. Training Certification Program, "FrontLine Leadership" from Zenger Miller/Achieve
4. Certificate in Organizational Development
5. Teaching Credential
6. Human Resources Certification Program through a University
7. Elementary Education Certification
8. 23 years banking experience with some college and many industry courses
9. Numerous conferences, seminars, workshops, ASTD activities, site, etc.
10. Select courses in IT, Training Development and HR general which did not lead to a degree
11. Certificate as Trainer/Facilitator. Currently in Master Program-HR
12. Project Mgmt MS Certificate
13. CLU
14. Some college, professional certification as Training Manager

APPENDIX X

COMMENTS FROM RESPONDENTS REGARDING
SPECIFIC ITEMS OF INTEREST NOT
COVERED BY THE SURVEY
SURVEY ITEM F12

1. Would be interested in reporting methodology to management.
2. How one gets trained to conduct ROI, e.g. Phillips
3. Distance learning for distributed workforces
4. ROI
5. Our organization is experiencing reorganization, therefore some of the data requested may conflict, as we are just beginning to focus on Training Effectiveness reporting.
6. Reporting methodology to mgmt

APPENDIX Y

GENERAL COMMENTS FROM RESPONDENTS

SURVEY ITEM F13

1. I would like to see the results and the sample methodology.
2. Please note that the first sets of questions were answered from the perspective within one division in the firm. Most of our training function is decentralized. Our centralized university would have different practices.
3. Responses are estimates since some of the questions asked for data at a much more detailed level that is tracked.
4. Note-We are responsible for training our field force, not home office staff.
5. Need to address ROI from an asynchronous environment perspective-Virtual, distance based, WBTs, taking into consideration ROI's on recorded virtual sessions used on repetitive basis to test/impact associate performance.
6. Pls call if you have questions. [ ] is a very large organization with many T&D Depts. My comments are about only one business unit within [ ]. Looking forward to the results.
7. I'd love to see your summary.
8. The wording of some of the questions was confusing. Also, our organization is relatively small and we are in the early stages of developing our training program with limited resources.
9. I would be very surprised if you find out anything different from previous surveys both formal and informal. Levels 3 and 4 are hard to pull off.
10. No, Good Luck!
11. The numbers that I am including represent [ ], which is only one area within [ ].
12. Wish we did a better job creating data for ROI, though I've not seen anything I thought would work for us.
13. Yes-my responses are based on my personal opinions & not fact-

14. This survey covers only my area – "soft skills" training. It does not cover technical & systems training
15. Good luck w/the survey & the dissertation!
16. Would like to receive the results. Thanks!
17. Up until about a year ago we had one of the most comprehensive evaluation programs I have encountered in 19+ years in training & development. We had regular level 1, 2, & 3 evaluation & 3 FTE's devoted to evaluation. In a recent reorganization all of this was swept away and we now do only participant reaction evaluation. The training & development profession has experienced great advances in how to measure and evaluate the outcomes of training interventions. But despite numerous and varied attempts to educate organizational management about the value of this data, in many respects it is "pearls before swine" when it comes to organizational management recognizing the value it has.
18. I was glad to participate and look forward to the results. Gig 'em!
19. Pls call if you have questions. [ ] is a very large organization w/many T&D Depts. My comments are about only 1 Business Unit within [ ]. Looking forward to the report.

VITA

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Education

Ph.D. Educational Psychology, May 2003
Texas A&M University, College Station, Texas
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M.S. Educational Psychology, 1998
Emphasis: Intelligence, Creativity, and Giftedness
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B.B.A. Business Administration, 1993
Major: Management Minor: Economics
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Work Experience

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Graduate Teaching Assistant, College of Education, Texas A&M University, College Station, Texas, August 1999-December 2000

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Graduate Assistant, Center for Leadership in Higher Education, Office of the Chancellor, The Texas A&M University System, College Station, Texas, 1998

Banking Officer, NationsBank of Texas, Austin, Texas, 1994-1997

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